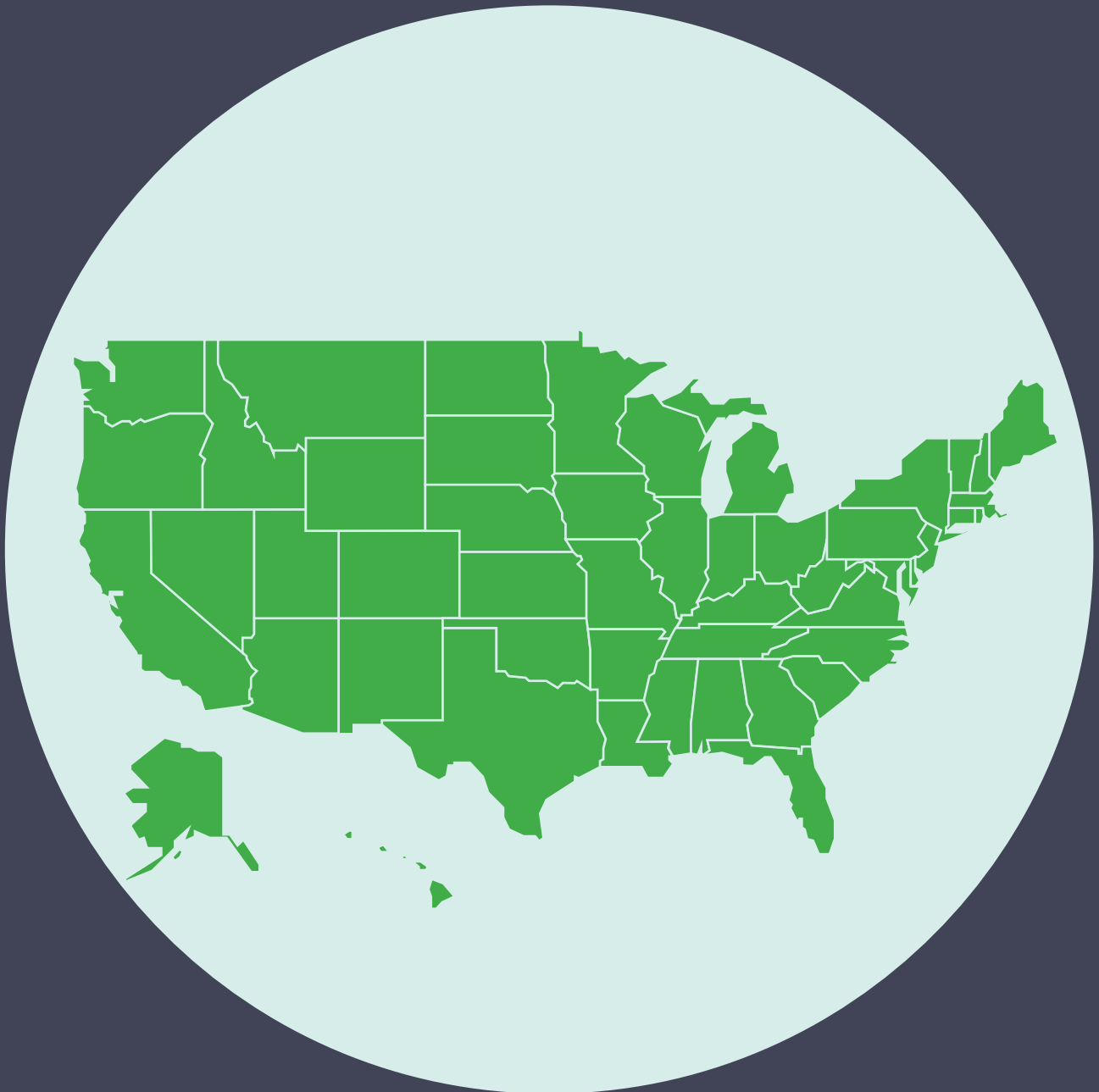


U.S. Chamber of Commerce Foundation

ENTERPRISING STATES 2014

Re-creating Equality
of Opportunity



About the Study

The study was prepared by Praxis Strategy Group with Joel Kotkin. Authors from the Praxis team include Delore Zimmerman, Mark Schill, Matthew Leiphon, and Ryan Aasheim. Praxis Strategy Group is an economic research and community strategy company that works with leaders and innovators in business, education, and government to create new economic opportunities. Joel Kotkin is an internationally recognized authority on global, economic, political, and social trends.

About Enterprising States and Cities

The Enterprising States and Cities program takes an in-depth look at the free enterprise policies that are being implemented to promote economic growth at the state and local levels. The *Enterprising States* study, now in its fifth edition, measures state performance overall and across five policy areas important for job growth and economic prosperity—talent pipeline; exports and international trade; technology and entrepreneurship; business climate; and infrastructure. This year's study relates those policies and practices to the need for collaboration between education, workforce development, and economic development to positively combat the nation's growing skills gap.

About the U.S. Chamber of Commerce Foundation

The U.S. Chamber of Commerce Foundation (USCCF) is a 501(c)(3) nonprofit affiliate of the U.S. Chamber of Commerce dedicated to strengthening America's long-term competitiveness by addressing developments that affect our nation, our economy, and the global business environment. USCCF presents a broad range of programs that promote a greater understanding of economic and public affairs issues.

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EXECUTIVE SUMMARY

The growing skills gap is one of the most persistent challenges affecting thriving and lagging state economies—the disparity between the skills companies need to drive growth and innovation versus the skills that actually exist within their organizations and in the labor market. This disconnect, expected to grow substantially as the boomer generation retires, causes workers and companies to miss out on realizing their full potential. A sizable skills gap impacts virtually every aspect of the economy, thereby affecting our national competitiveness and, in turn, causing the economy to fall short of its potential.

The nature of the skills gap that employers face varies by geography. Each state has its own economic DNA with varying levels of growth and specialization for each industry. The energy-related skills gap in Texas or North Dakota, for example, is different from a manufacturing-driven gap in Michigan, aerospace in Washington, information technology in Utah, or the chemical industry in Louisiana.

Businesses and the public sector must work side by side to identify where there is a deficit of talent, reskill incumbent workers, and skill new entrants into the workforce to close the gaps within their communities. This is not a problem that can be solved quickly, but it can be solved. Strengthening America's science, technology, engineering, and mathematics (STEM) and middle-skills pipelines will require public-private partnerships as well as collaborations across federal, state, and local governments.

States Are the Focal Point for Action

States and their governors play a pivotal role in filling the talent pipeline, providing critical leadership to link businesses with the education, workforce, and economic development systems. Solutions will vary by state of course, but there is an emerging framework built on a foundation of both basic education and an employer-responsive workforce pipeline.

Economic development starts with strong schools focused on 21st century skills. For the past three decades, efforts by U.S. businesses, government, and educational organizations focused on retooling K–12 science, mathematics, and reading education and on addressing persistently high dropout rates in inner cities. Progress has been slow to remedy the looming skills shortage, but there is a growing sense of optimism that industry sector partnerships, greater attention to career pathways, and the implementation of integrated education and training will help to close the gap.

An employer-responsive talent pipeline requires aligning education, workforce development, and economic development. Postsecondary education institutions now get a considerably lower percentage of their funding from state sources than just a decade ago, but states continue

to make significant financial investments in higher education. Yet, a common refrain is that postsecondary offerings—at both two- and four-year institutions—are not sufficiently aligned with the skills needed in the workforce. For years, knowledge creation, research and development, and technology transfer have dominated higher education's economic development role. However, higher education's most important contribution to state economic competitiveness in the future might be teaching and talent production because states with the most high-level talent will have a leg up in the future economy of decentralized global networks.

Investing in people is perhaps the most effective long-term economic growth strategy. Training and education offer the best chance for workers to find well-paying long-term employment, while providing businesses and employers in every sector with the talent they need to grow.

Coordinating education, workforce development, and economic development has proven to be challenging among the states because the three fields are historically separate systems, with separate cultures and perspectives. States that are successful in navigating program integration and facilitating collaboration between these traditionally separate institutions will put themselves in the forefront of meeting one of the primary challenges to building a 21st century economy.

Because of these complexities, a governor serves the issue best by playing a leadership role in forming partnerships—particularly between business and education—and creating the structure to ensure effectiveness and efficiency in a demand-driven education-to-workforce pipeline. Often this involves a decentralized approach so that more decisions can be made at the local level.

21ST CENTURY WORKFORCE CHALLENGES IN THE STATES:

Right Now and Just Ahead

One of the most persistent challenges affecting both lagging and thriving state economies is the growing skills gap—the disparity between the skills companies need to drive growth and innovation versus the skills that actually exist within their organizations and in the labor market. A sizable skills gap impacts other vital dimensions of the economy including exports and international trade, entrepreneurship, and technology, all critical drivers of national competitiveness and economic growth.

States continually strive to build and sustain a competitive business environment to address current challenges and to develop 21st century economic opportunities. Many areas of the country still grapple with lingering high unemployment and struggling industries, while in other states, thriving legacy industries and a robust entrepreneurial ecosystem are creating new jobs.

For business, the joblessness and economic stagnancy mean many things, such as a diminishment of mass consumer demand at home, with particularly negative implications for those—home builders, appliance makers, energy companies, large retailers—who depend on large and expanding consumer markets.

“The skills gap is an issue that is not going away anytime soon,” according to Matt Ferguson, CEO of CareerBuilder and co-author of *The Talent Equation*.¹ The growing disconnect between the skills employers need and the skills that are being produced in the labor market today causes workers and companies to miss out on realizing their full potential and, in turn, causes the economy to fall short of its potential.

The gap also represents a crisis for America’s younger generation with “an increasing gap between those who are prospering and the growing number of young people being left behind because they lack the education, skills

and/or real-world opportunities to succeed. Too many of our country’s youth face an opportunity divide.”²

In the most robust blue-collar markets, such as Houston, where more homes are scheduled to be built this year than in the entire state of California, there are already severe shortages of skilled construction workers.³ More than 2 million construction workers were laid off during the recent recession, and much of the older workforce has moved into other fields.

These pressures, if the housing recovery grows, will become more severe in the future: 44% of the construction workforce is age 45 or older, and nearly one of every five construction workers is 55 or older, according to U.S. Census Bureau statistics. In reaction, the Associated General Contractors of America, which represents 30,000 companies, is developing charter schools and community college programs to address the need.⁴

The skills gap can be seen even in the long-suffering auto industry. The industry may have lost some 230,000 jobs in this recession, but the nature of the skills needed—such as for numerical machine tool operators—means that many of these workers will come from outside the old workforce. In fact, David Cole, chairman of the Center for Automotive Research, predicts that as the industry tries to hire upward of 100,000 workers, it will start running out of people with the proper skills as early as next year.⁵

This is clearly tied to the recovery of the U.S. auto industry, which has seen its production return to 2007 levels.⁶ More important, major U.S. automakers are investing in the old industrial heartland. General Motors, for example, has committed to spend more than \$1.3 billion to upgrade five Midwest factories, in Michigan, Ohio, and Indiana, including in Detroit itself, as well as nearby Flint and Romulus.⁷

But the biggest skills shortfall may be as a result of the current energy revolution, which, notes the president of Siemens, Joe Kaeser, “is a once-in-a-lifetime moment.”⁸ Cheap and abundant natural gas, in particular, is luring investment from European and Asian manufacturers, and sparking a new demand for not only geologists and engineers but also machinists, rig operators, and truck drivers.

The National Discussion Masks a Regional Problem

There is some difference of opinion about the severity and nature of the skills gap. Some analysts contend that the reason people can't find work is that aggregate demand in the economy is weak and, therefore, firms haven't been hiring.

A 2012 study by the Boston Consulting Group (BCG) suggests that there is currently little evidence of a meaningful and persistent skills gap in most parts of the United States, and calls for more aggressive recruiting and development of skilled workers at a time when the U.S. education system has moved away from a focus on manufacturing skills in order to put greater emphasis on other capabilities.⁹

Preparing for high-demand STEM jobs has received the bulk of the attention recently, but a broader range of middle-skills jobs also face a huge gap. No aggregate estimate of the shortage of middle-skills workers exists, but the number is expected to grow substantially as more baby boomers retire. Older workers are staying in their jobs longer, yet this is not necessarily reducing opportunities for young people. There are currently more job openings caused by retirements for every young worker than there were in the 1990s.¹⁰

The problem is most acute in the utilities and aerospace sectors—50% to 60% of whose workforces are eligible to retire by 2020 or likely to leave for other reasons—but it afflicts other industries as well. Occupations such as technicians in the energy industry, skilled manufacturing jobs, and various engineers and engineering technicians, have a majority of their workforce over age 45, and more than a quarter over age 55.¹¹

The energy workforce, like that in manufacturing,¹² is rapidly aging, and the demand for new, updated skills, particularly

using computers, has also soared and left manufacturers desperate for necessary workers.¹³ There is already, notes another BCG study, a shortfall of some 100,000 skilled manufacturing positions. In this respect, millennials may have finally caught a break. By 2020, according to BCG and the Bureau of Labor Statistics, the nation could face a shortfall of about 875,000 machinists, welders, industrial-machinery operators, and other highly skilled manufacturing professionals.¹⁴

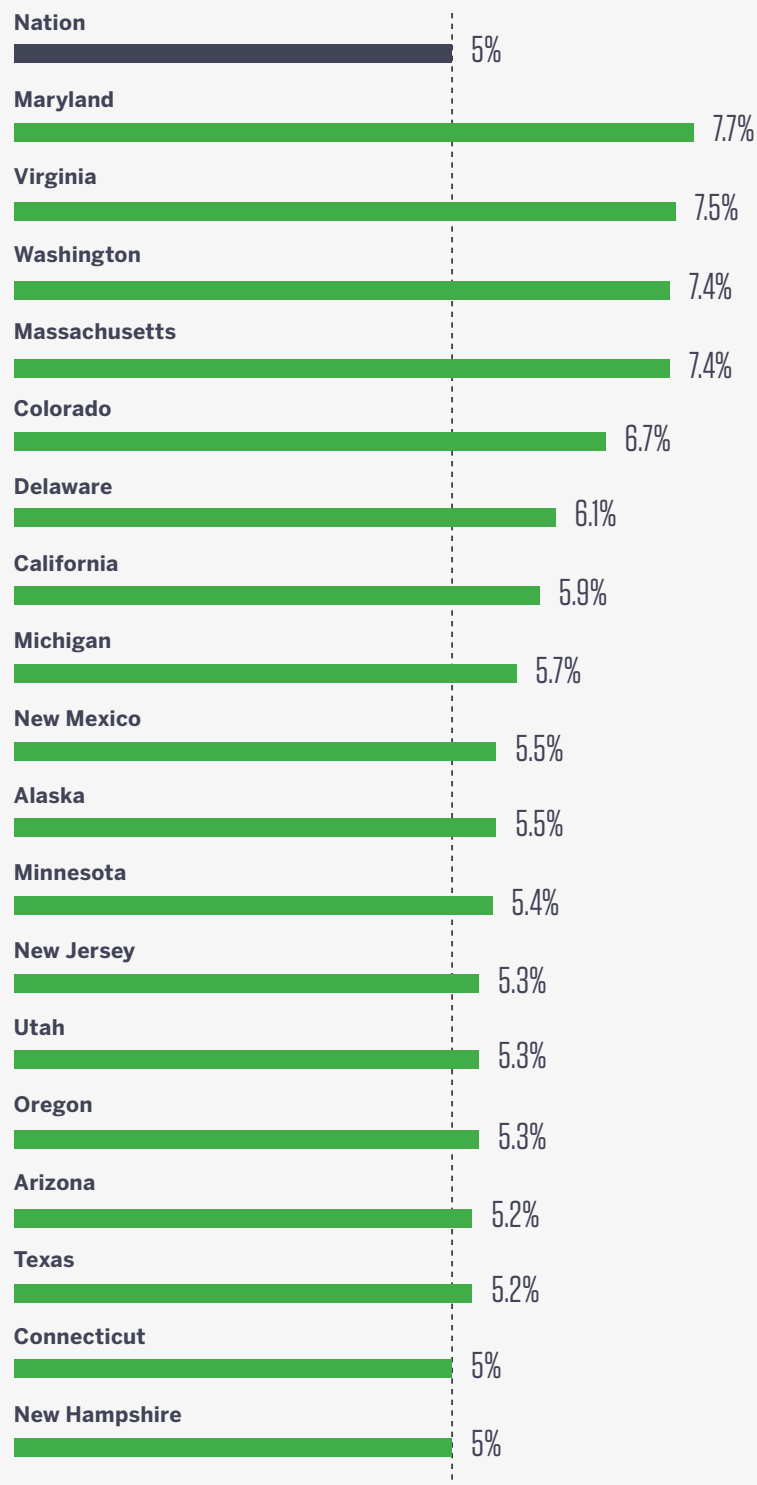
Each state has its own economic DNA with varying levels of growth and specialization for each industry. An energy-related skills gap in Texas or North Dakota, for example, is different from a manufacturing-driven gap in Michigan, aerospace in Washington, information technology in Utah, or the chemical industry in Louisiana. Along with industry variation, STEM jobs are not evenly distributed across states. Maryland is home to the nation's most concentrated STEM workforce, at 7.7% of total jobs. That figure is nearly three times the concentration of the lowest state.¹⁵

CareerBuilder's Matt Ferguson and his co-authors argue that analyses of national data mask skills and worker shortages occurring at the regional and state levels.¹⁶ The American economy is complex, comprised of varying, shifting regional building blocks. There is no clear national definition of the skills gap, and there are no singular solutions.

A granular, regional, data-centric approach is needed to understand how to deploy particular workforce solutions in each state. Each state and region must face the issue itself and implement solutions on the ground.

THE DISTRIBUTION OF STEM EMPLOYMENT

STEM Occupations as a Share of Total Employment, 2013



The Employer's Perspective: Soft Skills vs. Specialized Occupations

The employer's perspective, however, does seem to point to an immediate and meaningful gap, often driven by low levels of general and soft skills, rather than national shortages of particular occupations. Notably, employers recognize that they are part of the problem and part of the solution. The drivers of this gap, as delineated in a 2013 Harris Poll for CareerBuilder.com, are:

Education gap (37%)

Gaps in expectations around wages (37%)

Job requirements that are above entry requirements (35%)

New/shifting technologies (32%)

When asked to characterize the skills gap and to identify the main drivers behind it, employers point to various causes. A September 2013 survey of 500 CEOs by Adecco Staffing found that 92% of top executives believe there is a skills gap now, with applicants just not prepared for the workplace. Among the CEOs:

44% believe the gap is in "soft skills"—communication, critical thinking, creativity, and collaboration

22% believe the gap is in technical skills

14% believe the gap is related to leadership skills

12% believe the gap is in computer skills

8% believe there is no skills gap

Accenture's 2013 *Skills and Employment Trends Survey: Perspectives on Training* reports that nearly half (46%) of U.S. executives at large companies are concerned that they won't have the skills they need in the next one to two years. Accenture surveyed 400 executives to assess hiring, staffing, and training

strategies. For those executives who have or are anticipating a skills shortage, the biggest demand included:

Information technology skills (44%)

Engineering (36%)

Research and development (29%)

Sales (29%)

There is mounting evidence of significant mismatches in the supply of workers with STEM degrees and demand generated for particular occupations. This mismatch, combined with growing demand for soft skills, is leading to a redefinition of STEM training at all levels of education. The focus is shifting toward teaching the softer side of STEM that is useful for all workers, such as creative problem solving, transdisciplinary work, and research skills.¹⁷

The Impact of Filling the Gap

The impact of unfilled positions on employers in business, government, and the nonprofit sector is significant.¹⁸ Sixty percent of employers are concerned about the costs associated with delays in filling open positions, with one in four stating they have experienced losses in revenue as a result. Employers also reported compromised productivity and work quality and a rise in voluntary employee turnover among other consequences.

The overall impact on the American economy of the skills gap is significant as shown by an analysis by the Manufacturing Institute describing the impact of filling 600,000 manufacturing jobs:

+ Another 406,441 jobs would be directly created in all industries if we could fill the 600,000 open positions.

+ The unemployment rate would decrease 0.64% if those 1,006,441 jobs were filled.

+ National GDP would increase 1.03% if the 600,000 open jobs and 406,441 additional jobs were filled.

+ Economic opportunity costs created because of unfilled manufacturing jobs: \$67,789,000,000 in lost exports, \$47,401,000,000 in lost foreign direct investment, and \$8,493,000,000 in lost research and development investments.

Potential new public sector revenues created by filling manufacturing jobs:

+ \$17,590,000,000 in income taxes, \$6,653,000,000 in corporate taxes, reduction of \$10,266,000,000 in unemployment insurance claims.

From a state vantage point, there is a substantial positive economic impact to be gained by addressing the skills gap. *Great Jobs within Our Reach*,¹⁹ a report by the Boston Consulting Group and the Washington Roundtable, quantified the potential impact to the state of Washington. Assuming 25,000 “acute” unfilled jobs and using the multiplier effect, the report projected that filling the job skills gap could result in an additional 110,000 jobs across many sectors by 2017, for a total of 160,000 new jobs. The report also found that addressing the skills gap could reduce the unemployment rate by up to 2 percentage points and generate \$720 million in annual state tax revenues and \$80 million in local tax revenues by 2017.

A simple extrapolation from the results of the Manufacturing Institute’s study and the one-state results from Washington makes it easy to see that the job skills gap has significant implications for our entire economy now and well into the future.

THE JOB SKILLS GAP: PROJECTING FUTURE CHALLENGES

A recent study by Georgetown University's Center on Education and the Workforce—*Recovery: Job Growth and Education Requirements Through 2020*—encapsulates the future workforce challenges the American economy faces in the coming decades.



The U.S. economy will grow from **140 million to 165 million jobs** by 2020.



65% of all jobs in the economy require postsecondary education and training beyond high school By 2020,



Job openings in health care, community services, and STEM will grow the fastest among occupational clusters.

There will be 55 million job openings in the economy through 2020. 24 million openings from newly created jobs and 31 million openings due to baby boomer retirements.

Employers will seek cognitive skills such as communication and analytics from job applicants rather than physical skills traditionally associated with manufacturing. *Judgment and decision making, communications, analysis, and administration will be the four most in-demand competencies in the labor market.*

By Educational Attainment



35% of the job openings will require at least a bachelor's degree



30% of the job openings will require some college or an associate's degree;



36% of the job openings will not require education beyond high school.



The United States will fall short by 5 million workers with postsecondary education—at the current production rate—by 2020.

Diminishing Returns on Education

For generations, we have assumed that more education would provide the key to upward mobility. The country's views about the value of education were shaped in large part by the experience of the post—World War II era, when a college education meant an all-but-guaranteed path to a good job and was the anchor of strong regional economies.

But this paradigm may have reached its limit, at least for many Americans. Overall, the returns to higher education (particularly outside the most elite schools) are declining and have been for as much as a decade. Earnings for four-year-degree graduates, notes the left-of-center Economic Policy Institute, have actually dropped over the past decade.²⁰ Unemployment and underemployment of recent college graduates has not declined as the economy recovers from the recession.

More than half of all recent college graduates are un- or underemployed, a level much higher than a decade ago.²¹

Indeed, more than 43% of recent graduates are now working, according to a recent report by the Heldrich Center for Workforce Development, at jobs that don't require a college education. Some 16% of bartenders and almost the same percentage of parking attendants, notes Ohio State Economics Professor Richard Vedder, have a bachelor's degree or higher.²² At the same time, the incomes earned by graduates have dropped over the past decade by 11% for men and 7.6% for women.²³

Not surprisingly, the young, who are traditionally optimists, are becoming far less so. According to a Rutgers study, 56% of

recent high school graduates feel they will not be financially more successful than their parents; only 14% think they will do better. College education doesn't seem to make a difference: 58% of recent college graduates feel they won't do as well as the previous generation. Only 16% think they will do better.²⁴

Accountability and Rethinking Education

Many employers contend there is no clear definition or understanding of what skill sets many degrees provide. Perhaps more critically, there is no common understanding—among businesses, educators, and workers—about how to define “quality” in higher education.²⁵

Clearly, if we are to advance as a country, we need to develop a new perspective on education. It's not just a matter of money—money should be spent, but more emphasis needs to be placed on how. After all, we boosted per-pupil spending on public elementary and secondary education by 327% (adjusted for inflation) from 1970 to 2010 with no resulting rise in student scores.²⁶

Increasingly, schools will have to focus more on actual skills—notably in communication and research—even for the brightest students. This pattern seems particularly strong in small liberal arts colleges, many of which have eviscerated their core curriculum.²⁷ More important, we need to put greater effort into reaching those who may not be ideal for a classical liberal four-year education. This may include a greater emphasis on skills, such as nursing, rehabilitation, and technical and scientific areas of specialization. It also includes expanding innovative programs, such as the one at LaGuardia College in New York, that help high school dropouts get their diplomas.²⁸

Although some of these students may still seek four-year degrees, many solid opportunities do not require more than a two-year associate's degree or a certificate. This may be particularly critical to the roughly 40% of students who attend but then drop out of college.²⁹ In some states, data suggest that graduates of two-year and certificate programs now out-earn their four-year counterparts, at least initially. Even over 30 years, adding the years spent in school and loans, the difference between college and certificate graduates is barely \$90,000. By

2018, there are expected to be 14 million new jobs for which this more targeted and much less expensive education is suited.³⁰

We must instead climb down from the notion that the solution to our education woes is primarily “more.”³¹ More what? And what good would these extra degrees do for individuals, the society, the economy, or upward mobility? The solution lies in a more demand-driven education system, which can only be achieved by explicit cooperation between the business and education communities.

Perhaps contrary to public perception, the business community should find willing partners in the university system. Ninety-six percent of academics agree that they should be communicating with the private sector about job skills. Most academics believe their role is to train students for a career, and 73% say they are adapting curricula to better fit the demands of employers. However, 73% also believe that a company offering its own training will get more job applicants.³²

Businesses are rethinking how they find and develop talent. Authors of *The Talent Equation* found that while 8 of 10 employers express concern about looming skills shortages, only 4 of 10 are acting on it.³³ Many businesses have or are expecting to increase investments in training. About half of all employers are now planning to train new hires, up from 39% in 2013. Pay has been creeping up in many industries over the past several years, and 42% of employers say they are increasing pay for high-skilled positions.³⁴

The Middle-Skills Resurgence

Middle-skills jobs are those that require more than a high school education, but less than a four-year college degree.³⁵ Nationally, this group of jobs typically pays in the range of \$14–21 per hour.³⁶ The notion of middle-skills is most often associated with blue-collar occupations, but there are also growing ranks of white-collar middle-skills workers in administrative support and information technology along with critical health care workers.³⁷

For much of the past decade, and even further back, the American blue-collar worker has been pitted as doomed to live out his life on the low-paid margins of the economy. Blue-collar workers were described as “bitter,”³⁸ psychologically scarred,³⁹ and even an “endangered species.”⁴⁰ Americans, noted one economist, suffered a “recession” but those with blue collars endured a “depression.”⁴¹

Many proponents of the “information economy” dismiss the very idea that manufacturing or construction jobs are ever coming back. Instead, suggests *Slate* magazine, working-class people from places

like Detroit should move to areas like Silicon Valley or Boston, where they can make money cutting the hair of high-tech magnates.⁴²

Fortunately, this notion is already being proved wrong. Contrary to the assertions made by *Slate*, we are just beginning to see a revival in higher-paid blue-collar work. Over the past three years, nearly 1.4 million new jobs have been created in high-wage blue-collar industries, and the momentum is, if anything, building.⁴³ Although we will likely never see the boosts in or levels of blue-collar employment of the past century, the demand for pertinent blue-collar skills seems likely to increase in future years. Even as overall manufacturing employment has dropped, employment in high-skilled manufacturing professions, according to a New York Federal Reserve study, has soared 37% since the early 1980s.⁴⁴

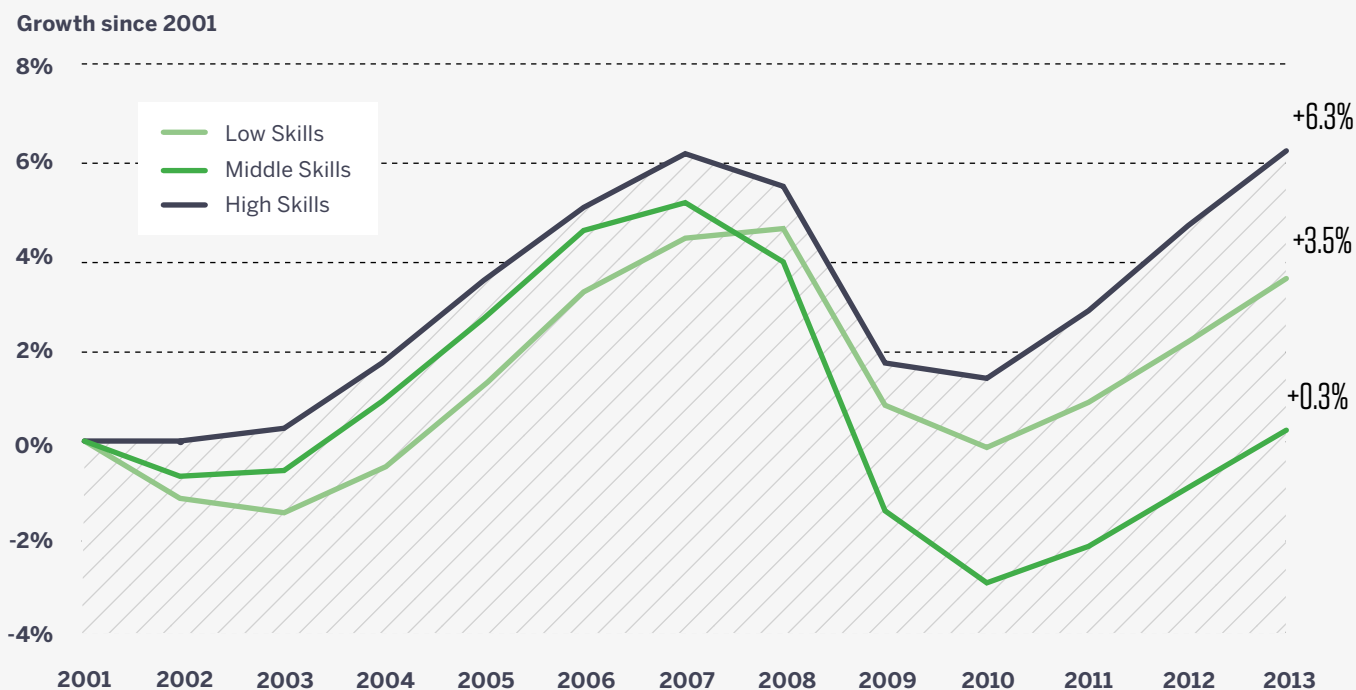
Nationally, this cross section of higher-value blue-collar industries employs 31 million people, just more than one-fifth of the nation's workforce.⁴⁶ Many of these jobs offer the prospect of restoring upward mobility. Jobs in fields such as oil and gas, construction,

Source: EMSI Class of Worker, 2014.1



MIDDLE-SKILLS JOBS HIT HARDEST BY THE RECESSION

Job Growth by Occupation Skill Level



BLUE-COLLAR BOUNCEBACK

Growth of High-Value Blue-Collar Industries vs. All Others, 2010–2013

High-Value Blue-Collar Industries

4.6%

All Other Industries

3.9%

▲ Sources: EMSI Class of Worker, 2014.1. “Blue-Collar” includes materials and labor-oriented industry sectors averaging more than \$40,000 in annual earnings

MIDDLE-WAGE BOUNCEBACK

New Middle-Wage Jobs by Industry Sector, 2010–2013

254,398 JOBS

Administrative Support, Waste Management, and Remediation Services

228,352 JOBS

Health Care and Social Assistance

207,804 JOBS

Manufacturing

174,746 JOBS

Retail Trade

150,823 JOBS

Professional, Scientific, and Technical Services

102,944 JOBS

Accommodation and Food Services

80,546 JOBS

Mining, Quarrying, and Oil and Gas Extraction

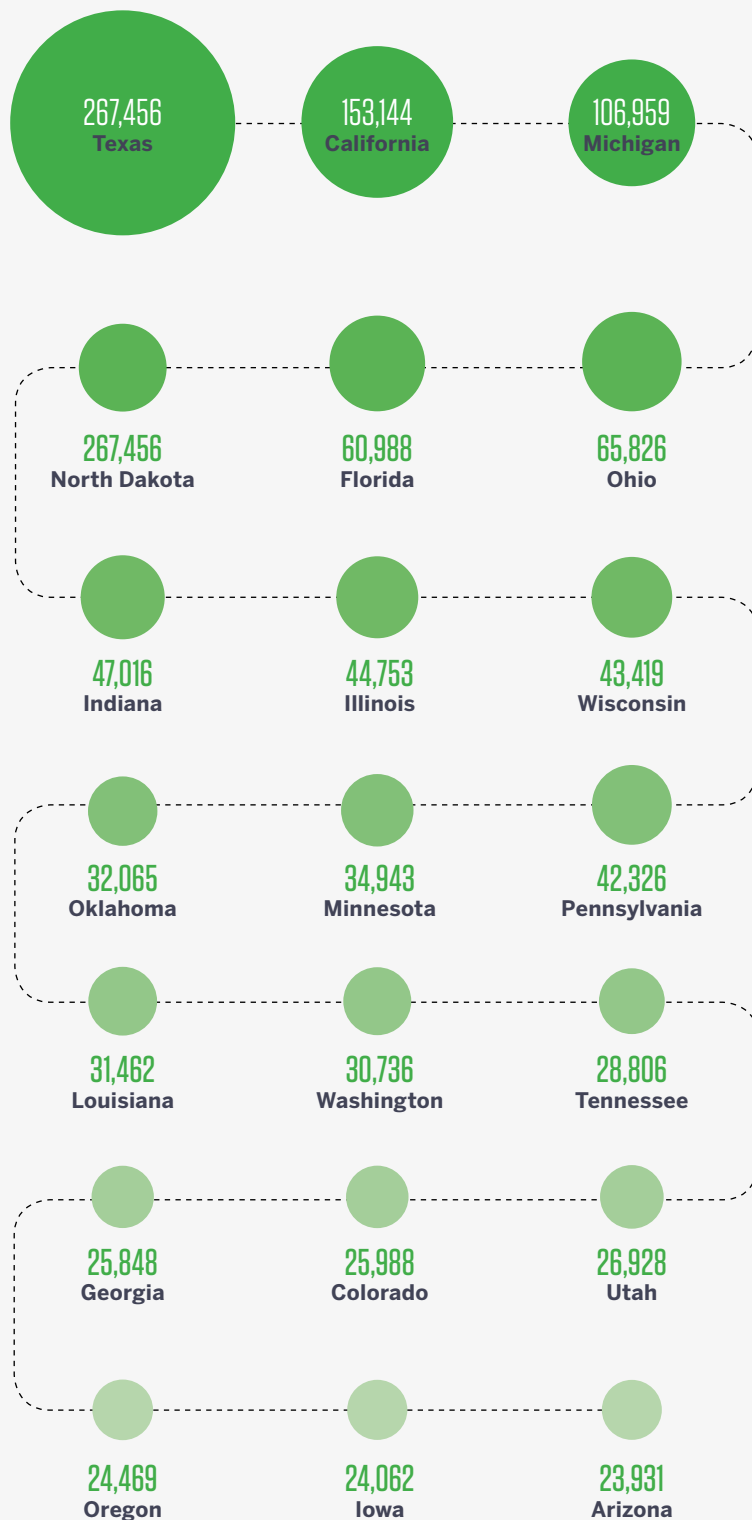
77,550 JOBS

Wholesale Trade

▲ Source: EMSI Class of Worker, 2014.1

BLUE-COLLAR GROWTH REGIONS

Employment Growth in High-Value Blue-Collar Industry Sectors, 2012–2013



▲ Source: EMSI Class of Worker, 2014.1. Measures a group of 37 blue-collar industry sectors at the 3-digit NAICS classification level

manufacturing, and trade average roughly \$60,000 in annual compensation, with some, such as oil and gas, reaching well over \$100,000 annually. In any case, these fields pay far better than alternative sources of employment for non-four-year college graduates, such as retail (\$33,000), food service (\$19,000), hospitality (\$32,000), or, for that matter, the arts (\$40,000).

Workers in these fields are likely beneficiaries of the closely linked expansion of both U.S. energy and manufacturing. New energy finds have sparked growth in both construction and industrial jobs—directly, in such things as pipelines and refineries, and also in foreign industrial investment—reflected in electricity costs that are now well below those seen in Europe or East Asia.⁴⁶

In addition, some large U.S. companies are moving or plan to shift production to America from China. This is occurring, notes the Boston Consulting Group, as a response to both rising wages in China and the sometimes unpredictable business conditions there.⁴⁷ These developments have sparked rising demand for some more-traditional blue-collar skills.⁴⁸ Among all professions for non-college graduates, manufacturing skills, according to a study by Express Employment Professionals, were most in demand.⁴⁹

Those who attain certification in a basic skills field—for example in STEM—often outperform those with four-year degrees in fields such as humanities or social science.⁵⁰ Mark Schneider, president of College Measures, which developed a tool to measure economic success of graduates using funds from the Lumina Foundation, found Texas students with two-year technical degrees have average first-year median earnings of about \$50,000, which is \$11,000 more than graduates with bachelor's degrees.⁵¹

These jobs are definitely not “low skilled” unless you define “low skilled” as simply not requiring a four-year college degree. Being a good carpenter (56% growth) or a good medical secretary (41% growth) takes smarts, hard work, and dedication. Blue-collar industry sectors are not the only drivers of middle-skills job growth. Since 2010, the nation has added 550,000 jobs paying \$14-21 per hour in the administrative support, health care, and business services sectors alone.

It is becoming clear that such skills-oriented training is a better match for many young people. The Center on Education and the Workforce at Georgetown University projects that by 2020, more than 65% of workers will need some kind of postsecondary training, with those needing either a two-year degree or a certificate climbing to 30%. The share requiring a bachelor's degree will rise to 24%, but jobs requiring a graduate degree are expected to remain stagnant over the same period.⁵²

“We don't just need people—we need people who can meet our standards,” observes Patrick Gibson, a senior manufacturing executive at Boeing's Heath, Ohio, plant. “There's a need for a whole change of attitude. It used to be we asked people to check their brains at the door. Now we need people to be not only skilled, but highly engaged.”



STATES: THE FOCAL POINT FOR ACTION

Clearly, businesses and the public sector must work side by side to identify where there is a deficit of talent, reskill incumbent workers, and train new entrants into the workforce to close the gaps within their communities. This is not a problem that can be solved quickly, but it can be addressed. Strengthening America's talent production system will require public-private partnerships as well as collaborations across federal, state, and local governments.

States and their governors play a pivotal role in filling the talent pipeline, providing critical leadership to link businesses with the education system. Oklahoma Governor Mary Fallin, the National Governors Association chair for 2013–2014, makes this point clear, stating that “governors are uniquely positioned to foster stronger connections between education and the workforce because within states, they are the sole individual who has responsibility for both public education and economic development.”⁵³

Building the New Paradigm: Lessons from the Rust Belt

Fortunately, some states and communities are getting the message. Programs such as the Houston Independent School District's Academy for Petroleum Exploration and Production Technology, funded by industry sources, are leading working-class, predominately minority students to train for skills for high-wage industrially oriented jobs. Tennessee, another growth-oriented state, has developed 27 “technical centers” that focus on producing skill credentials requiring only months of schoolwork—and at a far lower price tag than a conventional college.⁵⁴

But some of the strongest programs are emerging in the industrial heartland itself. In places like central Ohio, a significant energy boom has occurred, bringing with it new jobs and expansion of the industrial base. There are already 65,000 oil and gas wells in Ohio and more are on the way, notes Rhonda Reda, executive director of Ohio Oil and Gas Energy Education Foundation.

This energy boom has powered Ariel Corporation CEO Karen Wright's business—selling compressors for natural gas wells—and has led her to add more than 300 positions over the past two years. “There's a huge amount of drilling throughout the Midwest,”

Wright suggests. “This is a game changer.”

Today Wright's biggest problem is not too little work, but not enough skilled workers. “We have a very skilled workforce,” notes Wright, who employs 1,200 people at three factories in central Ohio, “but they are getting older. I don't know where we are going to find replacements.”

To meet this demand, many industrial firms such as Wright's have turned to Central Ohio Technical College, located in the industrial hub of Newark. The college has expanded its training efforts, adding 70 people to its welding program and another 50 for machinist training. Much of the emphasis is on certificate programs designed by companies that have contributed funds to cover some of the training costs.

This shortfall might sound odd given that the region has suffered bouts of high unemployment for a generation and is just emerging from the worst recession in decades. Yet even in areas with a history of high unemployment, one hears the same concerns: a lack of skilled workers capable of running the country's increasingly sophisticated and globally competitive factories. Many of these

jobs pay well; an experienced machinist at Ariel Corp., for example, earns more than \$75,000, a very good wage in an area where a nice single-family house can be bought for less than \$150,000.

“There are very few unskilled jobs anymore,” Wright observes. “You can’t make it just pushing a button. These jobs require thinking and ability to act autonomously. But such people are not very thick on the ground.”

This kind of shorter educational alternative will become ever more important as the current workforce at industrial facilities retires within the next few years. The average age, for example, of skilled workers in the industries supplying the gas boom is well into the mid-50s. “At our plant you have lots of people with 20 to 30 years’ experience,” says Jeff Kirk, manager of human relations at Kaiser Aluminum’s Heath, Ohio, plant. “We are simply running out of people.”

The need for precision—particularly in areas involving capital machinery—requires something other than an ability to show up. An operator of a modern CNC (computer numerical control) machine has control of equipment that can cost upwards of \$5 million, notes Wright. A new hire in this position must have knowledge of programming, metallurgy, cutting tool technology, geometry, drafting, and engineering. Increasingly, the factory worker of today is less Joe Six-Pack and more renaissance person.

Perhaps the biggest problem facing manufacturing is the poor perceptions among young people about these industries. For many young people, craft work such as plumbing is not only unfashionable but considered without a future. Yet it is a step up for people who otherwise may be stuck in the lower rungs of the economic ladder.

“You have a lot of people sitting in the city doing nothing. They did not succeed in college, but this way they can find a way up,” comments Kelly Wallace, who runs the Career and Technology Education Center in Licking County, Ohio. “Now they can find a job, make good money and get a future.”

The imperative now is to get people to reconsider their educational options. “People go to college not because they want to but

because their parents tell them that’s the thing to do,” observes Kirk. “Kids need to become aware of the reality that much of what they learn in school is not really needed in the workplace. They don’t realize a pipefitter makes three times as much as a social worker. They don’t have a clue.”

Boom-Building on the Bayou

Nowhere is the reality of the back-to-basics economy more vivid than on the Gulf Coast. Overall, in 2011, Louisiana increased capital investment more than any other state.⁵⁵ Six of the 20 largest capital investments in the country are tied to oil and gas; the largest, from the South African company Sasol, is located in western Louisiana, and involves a \$10 billion gas-to-liquids plant. The 2nd-largest, a liquid natural gas plant, is also located in the state. At the same time, Nucor Steel is building a plant in St. James Parish, which could see some \$3 billion in investment in as many as 1,000 full-time direct jobs. Other sectors, such as food manufacturing, have also gained employment, with several existing producers now in the midst of significant expansions.⁵⁶

To meet the new demand, the New Orleans region boasts numerous highly innovative trade-related schools, such as Delgado Community College and Nunez Technical Institute, two-year colleges with good track records of producing skilled workers in such key areas as nursing, machining, and maintenance. Dr. Monty Sullivan, president of Delgado, which has grown since Hurricane Katrina from 12,000 students to more than 18,000 in 2013,⁵⁷ notes many of his students come from working-class communities around the region. “Two-year colleges are critical to building a middle class,” Sullivan observes. “The difference between \$14 an hour and \$7 an hour is money for carfare and childcare. It’s a critical difference.”⁵⁸

The high pay of these industrial and other skilled jobs, notes Nunez Chancellor Dr. Thomas Warner, has attracted some students who are graduates of four-year colleges, and whose degrees have not resulted in anything like the opportunities found in trade and technical fields. “People come here to get a job, and they know these kinds of jobs pay well.”

Texas: Hitting the Worker Supply Wall

No region is enjoying more high-wage blue-collar growth—and a potentially greater skills shortage—than Houston. Much of this growth is tied to energy; since 2001, the oil and gas sector has been directly responsible for an increase of 67,000 jobs. Energy, of course, requires many highly educated professionals—the region now boasts the 2nd-highest per capita population of engineers behind only San Jose/Silicon Valley and has seen a 24% growth in STEM jobs, compared with less than 5% growth in San Francisco, while the New York, Los Angeles, and Chicago areas actually lost such jobs.⁵⁹

But at the same time, Houston has seen a surge of higher-wage middle-skilled jobs (usually requiring a certificate or two-year degree) in fields such as manufacturing, logistics, and construction as well as energy. Since 2007, according to calculations derived from the Bureau of Labor Statistics, Houston led 52 major metropolitan areas in the creation of such jobs at 6.6% growth; these jobs also paid more than \$100,000 annually.

In the future, Houston's biggest challenge may not be the lack of university-minted workers, who continue to flock to the city, but finding people in the skilled trades. Already, the petrochemical and construction industries complain about looming shortages. The lack of plumbers, electricians, and other trades is already impacting construction of new housing, offices, and industrial facilities in the region.

"The great thing is we have all these jobs but not the people in the pipelines," says Marshall Schott, associate vice-chancellor at Lone Star College. "Sure we have need for more geologists and engineers but by an order of magnitude we need skilled workers such as welders and machinists. This offers a job that pays \$80,000 a year, a lot better than being a barista at Starbucks."

The city's largest community college, Lone Star, has increased its enrollment by 58% to 78,000 students in just the past five years, in large part supported by energy, construction, and other local firms, and is projecting growth to more than 100,000 students by 2018.



BEST PRACTICES FOR STATE JOB CREATION POLICY AND THE TOP PERFORMERS

Implementing smart talent pipeline strategies tailored to each state's specific skills gap challenges and growth opportunities has become perhaps the most critical aspect of state job creation recently. However, other fundamental policy topics for job creation remain critical. The annual *Enterprising States* project, now in its fifth year, assembles best practices for state job creation in five key policy areas:



Enterprising States uses a performance index of a set of metrics to identify the top 10 state performers in each policy area. The policy areas are not mutually exclusive; for example, tax incentives can be used to stimulate entrepreneurship and technology innovation, while infrastructure, such as ports, is essential for exports.

Talent Pipeline

Solutions will vary by state, but there is an emerging framework built on a foundation of both basic education and creating an employer-responsive workforce pipeline.

Building Blocks for a Quality Education

Economic development starts with strong schools focused on 21st century skills that have the following ingredients:

Access to quality early childhood education that includes private providers and choice

Higher, clearer learning standards that prepare all learners for college and careers

A robust STEM career pathway that includes opportunities for work-based learning, industry credentials, and contextualized curriculum

Transparency and accountability in higher education

For the past three decades, efforts by U.S. businesses, government, and educational organizations focused on retooling K–12 science, mathematics, and reading education and on addressing persistently high dropout rates in inner cities. Progress has been slow to remedy the looming skills shortages,⁶⁰ but there is a growing sense of optimism that industry sector partnerships, greater attention to career pathways, and the implementation of integrated education and training will help to close the gap.⁶¹

Employer-Responsive Workforce Pipeline

An employer-responsive talent pipeline requires aligning education, workforce development, and economic development. Postsecondary education institutions now get a considerably lower percentage of their funding from state sources than just a decade ago, but states continue to make significant financial investments in higher education.

The U.S. Chamber of Commerce Foundation's Education and Workforce Division published *Leaders and Laggards: A State-by-State Report Card on Public Postsecondary Education* in 2012 to provide a state-focused analysis of policies, practices, and funding decisions

directly related to postsecondary education. A common refrain in *Leaders and Laggards* and other studies is that postsecondary offerings—at both two- and four-year institutions—are not sufficiently aligned with the skills needed in the workforce.

Coordinating education, workforce development, and economic development has proven to be challenging at the state level. Job placement systems are typically state-operated, but the three fields are historically separate systems, with separate cultures and perspectives.

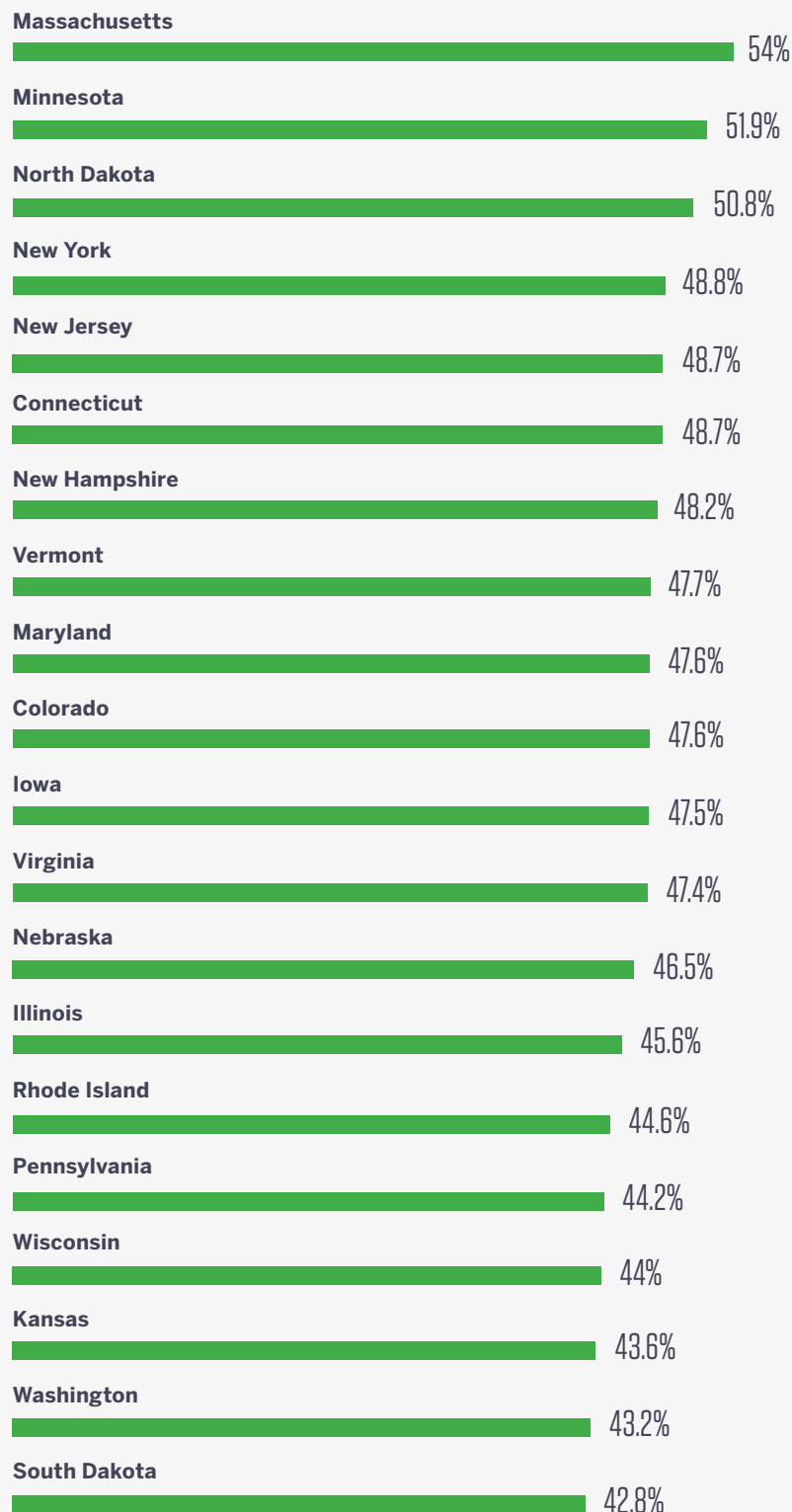
Investing in people is perhaps the most effective long-term economic growth strategy. For years, higher education's economic development role has been dominated by knowledge creation, research and development, and technology transfer. However, a university's most important contribution to state economic competitiveness in the future might be found in its traditional role of teaching and talent production. States producing the most high-level talent have a leg up in the future economy of decentralized global networks.

Training and education offer the best chance for workers to find well-paying long-term employment, while providing businesses with the talent they need to grow. Navigating program integration and facilitating collaboration between these traditionally separate job-creation institutions are two primary challenges facing state education and workforce development agencies.

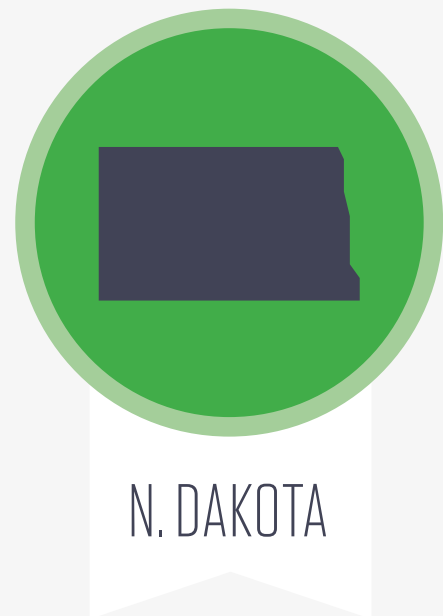
- + Improve workforce data deployment so that decisions are tied to solid data to improve effectiveness and to measure return on investment.
- + Implement industry-focused strategies for workforce development that combine education, training, workforce development, and economic development resources.
- + Engage businesses in developing flexible, affordable training programs to equip workers with skills need by local companies.
- + Deploy state-level workforce and training funds to improve flexibility.

EDUCATED YOUNG TALENT POOL

Share of Residents Age 25–44 with at Least a Two-Year Degree, 2012



TOP STATE
For Talent Pipeline



TOP 10 STATES FOR TALENT PIPELINE

1	North Dakota
2	Minnesota
3	Maryland
4	Utah
5	Virginia
6	Kansas
7	South Dakota
8	Florida
9	Wisconsin
10	Colorado

- + Create recruiting assistance and training programs for small and mid-sized firms similar to programs for exporters.
- + Decentralize training deployment to allow regional leaders to adapt and prioritize according to the economic needs in each part of the state.
- + Open up state training programs to existing employees instead of just new hires.
- + Provide performance-based funding for universities and colleges to make them more potent agents of workforce preparation and sources of opportunity, growth, and competitive advantage.

Top Talent Pipeline States

The top states for talent pipeline in this report are determined using six equally weighted measures:

- + Higher education output: total degrees conferred at the associate's degree level or higher adjusted for total state population
- + Higher education system efficiency: state cost per degree completion (associate's and higher) at public institutions
- + College affordability: average undergraduate charge at public institutions as a share of disposable personal income
- + Educational attainment: associate's degree holders and higher among 25- to 44-year-old population
- + Share of high school seniors scoring at least 3 or higher on an Advanced Placement exam
- + Labor force utilization: labor force participation rate

Exports and International Trade

International trade is a critical driver of growth for the American economy. Nearly 95% of consumers and three-quarters of the world's purchasing power is located outside U.S. borders.⁶² U.S. businesses are capitalizing on this by increasing their exports. Today, more than 38 million American jobs depend on trade.⁶³

Virtually every state in the union is recognizing the power of exporting as an economic driver. States are deploying a variety of tactics and programs to help businesses grow:

- Provide international market assessments and business practice information about foreign countries
- Identify and evaluate potential customers, distributors, and other prospective business partners
- Create export training programs that assist companies in the development of a customized international growth plan
- Provide access to expertise and resources throughout the international trade process: business finance and capital, legal services, and transportation logistics
- Coordinate trade missions and trade shows—including some that are governor-led to support in-state companies in their export activities to attract foreign companies and foreign direct investment
- Establish export-promoting overseas trade offices and representatives

Top Export States

The top export states were determined by a normalized, weighted index comprising four measures of export activity:

- + Export intensity: export activity as a share of gross state product (3 points)
- + Growth in export intensity (1 point)
- + Change in a state's share of total national exports (1 point)
- + Growth in overall gross exports since 2003 (1 point)

Only "manufactured exports" are included in the metrics, which excludes bulk commodities that are often attributed to the state of the port location instead of the originating state.

EXPORT INTENSITY

Dollar Value of Exports per \$100 of Gross State Product, 2012



TOP STATE For Exports



TOP 10 STATES FOR EXPORTS

1	Louisiana
2	Texas
3	Utah
4	Washington
5	Mississippi
6	South Carolina
7	Nevada
8	Kentucky
9	Michigan
10	Indiana

Technology and Entrepreneurship

New firm formation and a thriving small business sector are essential features of a dynamic, competitive economy. Technology-based firms, where innovation and entrepreneurship converge throughout all industry sectors, are the focus of many state development policies and programs because of their high potential for job growth, high multiplier effect throughout the economy, and wealth creation. Technology-based firms are also most likely to use knowledge assets of public universities and colleges including intellectual property and skilled talent, thereby generating a high ROI for state investments and the best prospects for a 21st century economy.

Similar to state programs to address the skills gap and workforce development, many states are now decentralizing deployment of entrepreneurship programs. State-level leaders offer guidance, networking, and funding while professionals on the ground decide how to address each region's unique entrepreneurship challenges. Typical approaches include:

Business plan competitions to stimulate new ventures

Internship programs to connect companies with talent, including those with STEM skills

Program resources focused on emerging growth companies with the most job creation potential

“Economic gardening” initiatives to assist in the expansion of established companies

“Ecosystem” initiatives and innovation hubs that foster university-business-government networking and collaboration

Technology transfer policies that facilitate the use of university R&D by the private sector

Investment funding, including angel tax credits, for startups and business expansions

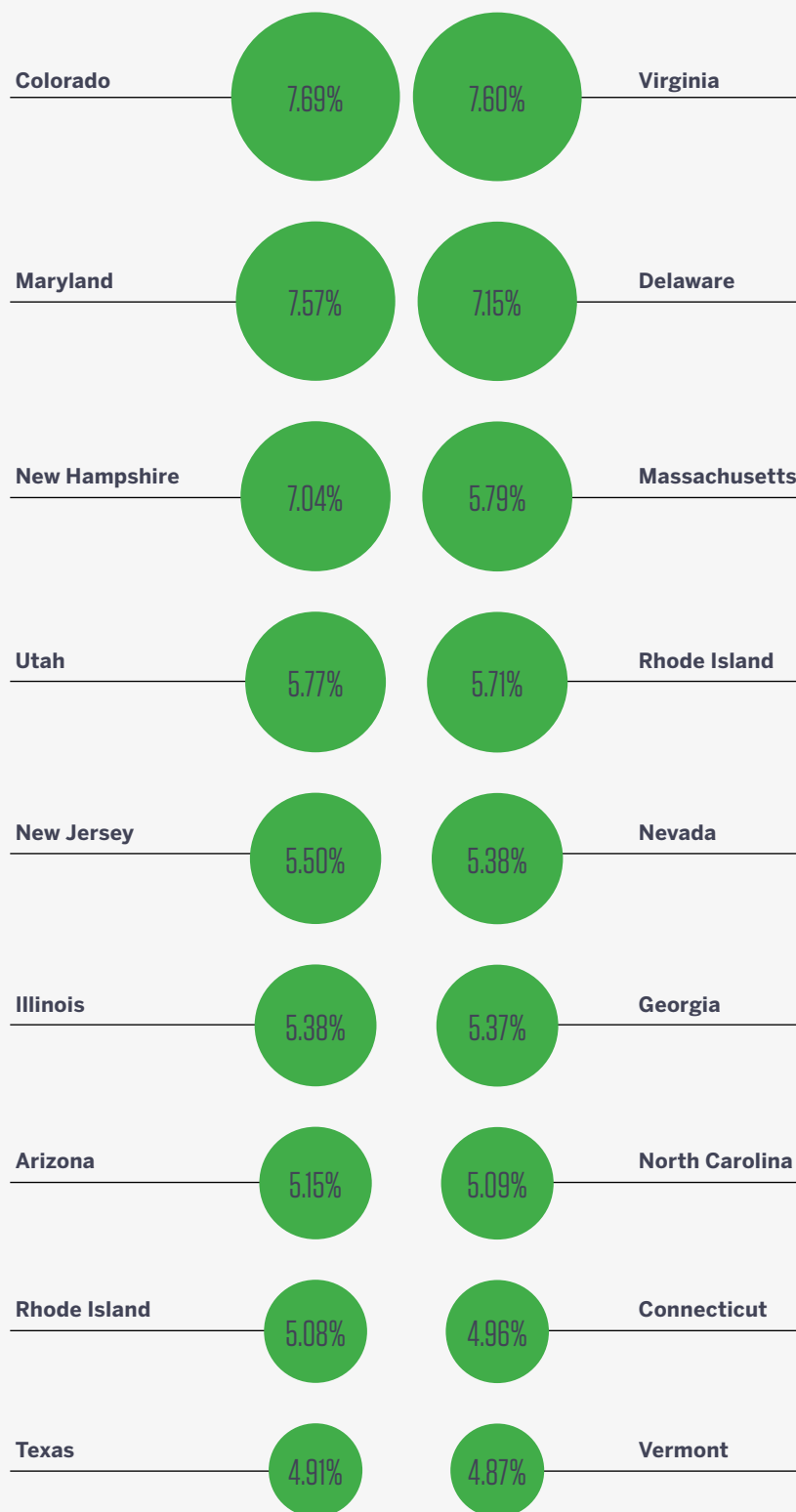
Top Technology and Entrepreneurship States

Six equally weighted measures were used to identify the top technology and entrepreneurship states:

- + STEM occupation concentration
- + STEM job growth
- + High-technology businesses as a share of all businesses
- + Academic research and development activity
- + New startups creation rate
- + Kauffman Index of Entrepreneurial Activity

HIGH-TECH STATES

High-Tech Business as a Share of All Establishments, 2013



TOP STATE
For Technology & Entrepreneurship



TOP 10 STATES FOR
TECHNOLOGY & ENTREPRENEURSHIP

1	Maryland
2	Colorado
3	Washington
4	Utah
5	Virginia
6	Massachusetts
7	Texas
8	Alaska
9	New Hampshire
10	Delaware

Business Climate

The Great Recession of the late 2000s caused revenues in many states to plummet, leading to a period of aggressive business climate reforms. As many governors' offices changed hands across the country, incoming state leaders were elected on a platform of strategic cuts and efficiency measures. While skills gap, workforce issues, and economic growth are gaining in importance in most states, business climate reforms remain a critical area of attention. Nearly every state considered or enacted tax reforms in 2013 and the trend of tax reform continues in 2014.⁶⁴

Business climate policy practices comprise four major categories:

Government modernization

Consolidation, reorganization, or elimination of agencies, boards, and commissions

Regionalization of governance to decentralize decision making and to customize and align service delivery with local circumstances

Streamlining and modernizing bureaucratic processes to increase productivity and improve service delivery, often by deploying services online

Public-private partnerships and privatization initiatives for the delivery of programs and services

Regulatory reform

Moratoria on new rules and regulations

Fast-track permitting

Eliminating rules, regulations, and statutes that are proven job killers, outdated, or duplicative

Impact statements for newly proposed rules and regulations

"One-stop" offices for state government

Tax reform

Reduction of business and personal taxes

Eliminating tax exemptions, broadening the tax base, and, in some cases, increasing rates and raising some fees to make up for lost revenues

Rolling back tax credits in some states

Tax credits for targeted purposes

Investment in startup and expanding businesses

Hiring employees

Businesses in targeted industries

Regulations tailored for targeted industries, e.g., financial, energy, and vehicles

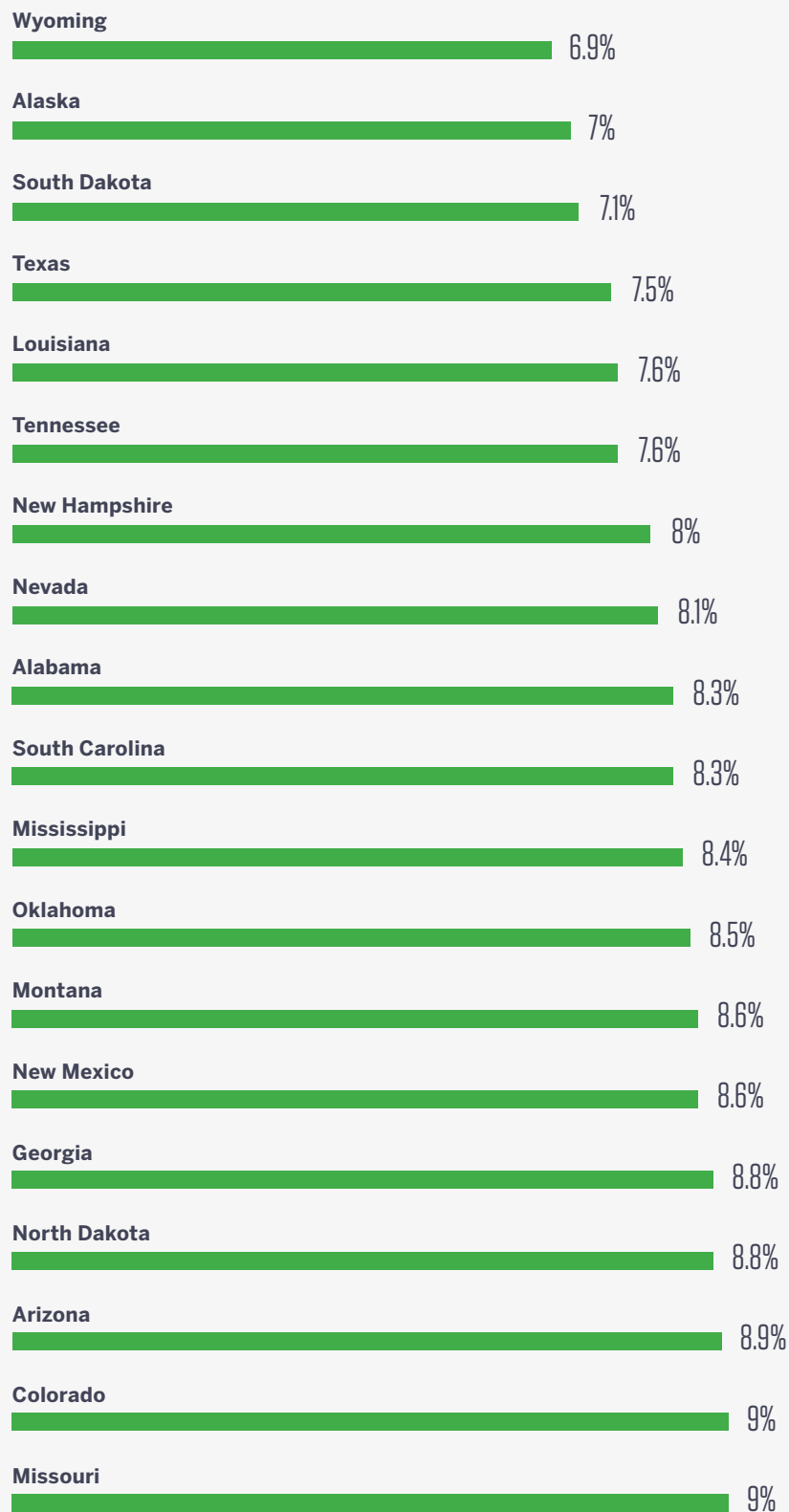
Top Business Climate States

Six equally weighted metrics determine the *Enterprising States'* top states for business climate:

- + Small business lending rate
- + Potential cost impact of legal reform (Institute for Legal Reform)
- + State and local tax burden (Tax Foundation)
- + Overall business tax climate index (Tax Foundation)
- + U.S. Business Policy Index (Council for Small Business and Entrepreneurship)
- + Cost of living

STATE & LOCAL TAX BURDEN

Fiscal Year 2011



TOP STATE For Business Climate



TOP 10 STATES FOR BUSINESS CLIMATE

1	South Dakota
2	Wyoming
3	Nevada
4	Alaska
5	Texas
6	Utah
7	Colorado
8	Arizona
9	North Dakota
10	Idaho

Infrastructure

Infrastructure development in support of economic growth transcends the traditional, but vital, focus on transportation infrastructure. Various economic research points to the correlation between broadband data access and economic growth.⁶⁵ Yet the job of economic development professionals is not just to promote deployment of hard technologies, but also to help users adapt and take advantage of its applications, particularly in technology-oriented businesses, in health care delivery, and for education and personal use. State leaders should not overlook the need for broadband access at the household level in order to maximize its effects for personal development and entrepreneurship.⁶⁶

As the next round of faster fiber-optic technologies are deployed, broadband will continue to be unevenly distributed. Just 35% of local economic developers report good broadband connectivity in their regions.⁶⁷

The future of federal funding for transportation infrastructure is in question. Federal funds are diminishing, potentially bringing on an era of decentralized funding, forcing states to adapt policy and to generate funds for improvements at the state level.⁶⁸ The evolving federal-state structure of transportation funding is a critical area of attention for governors because transportation infrastructure is a critical driver of state economic growth and prosperity.⁶⁹

State leaders should be aware of a variety of policy practices to improve infrastructure performance:

Expand access to and effective use of broadband services for business, education, and residential users

Target and incentivize specialized infrastructure for key state industries, such as data centers, clean-tech for energy, and waste/water/air systems

Upgrade ports, airports, and highway systems to facilitate commerce and trade

Establish state infrastructure banks or funds to make investments in infrastructure

Form public-private partnerships to leverage private investment in infrastructure

Increase investment in targeted energy infrastructure, providing industry with reliable, affordable access to electricity and the nation's expanding natural gas resources

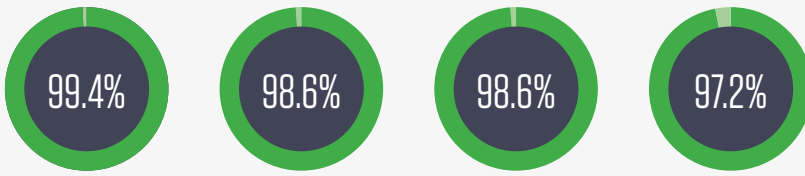
Top Infrastructure States

The top infrastructure states are determined by a combination of four equally weighted metrics:

- + Broadband capacity: share of households with 25-megabit download speed available
- + Broadband availability: share of households with five or more providers available
- + Road quality
- + Share of bridges determined to be deficient or obsolete

BROADBAND SPEED

Share of Households with at Least 25 Mbps Broadband, 2013

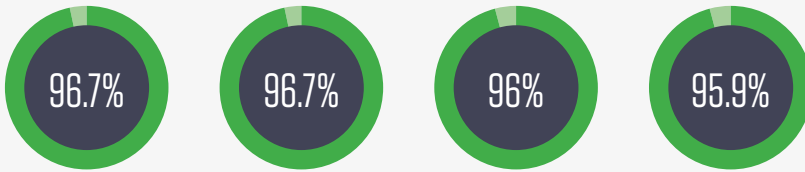


Rhode Island

New Jersey

Connecticut

New York

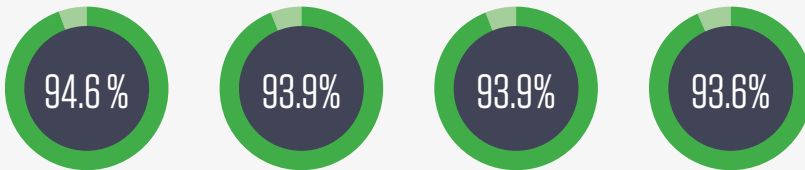


Massachusetts

Delaware

Washington

Hawaii

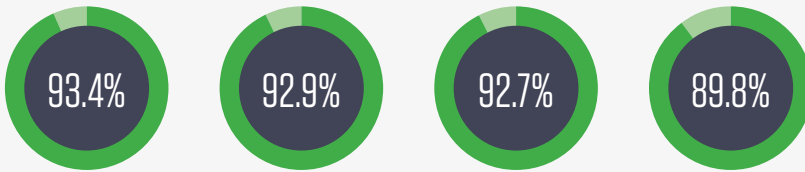


Florida

Nevada

Illinois

Utah

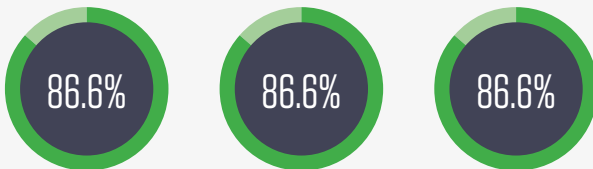


Maryland

Oregon

California

Pennsylvania



Georgia

Arizona

Michigan

TOP STATE
For Infrastructure



NEVADA

TOP 10 STATES FOR INFRASTRUCTURE

1	Nevada
2	Florida
3	Utah
4	Oregon
5	Arizona
6	Illinois
7	Minnesota
8	Georgia
9	Idaho
10	Colorado

Top Performers in Economic Performance

Just as the skills gap problem has no true national definition, economic performance differs across the nation due to the nuanced economic composition of each state.

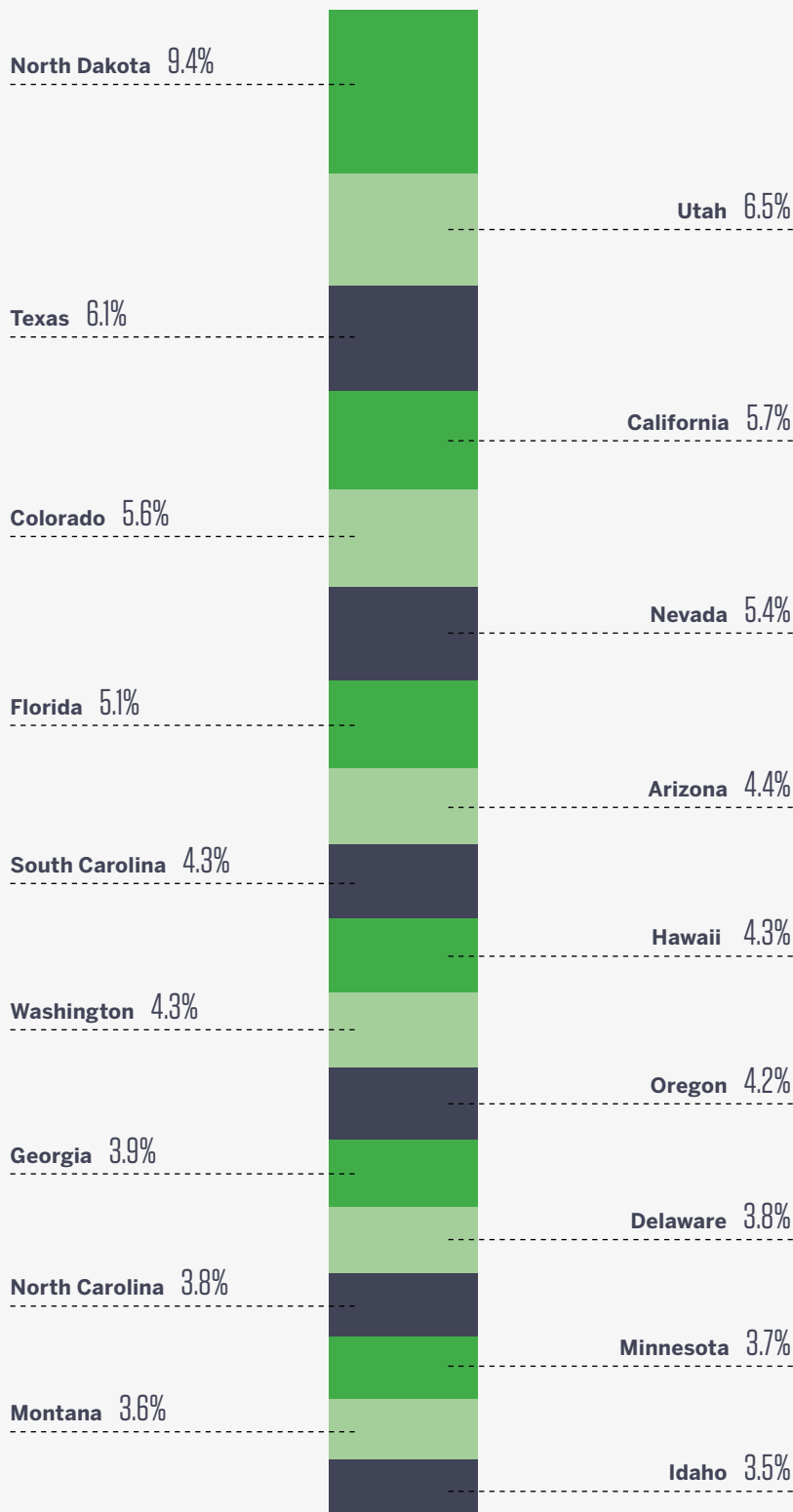
Because of its energy boom and strong small metropolitan economies, North Dakota leads the way. The nation's growth dynamo, Texas, ranks 2nd, followed by three western states with strong technology economies: Utah, Washington, and Colorado. The central part of the nation is emerging in economic prominence, with 7 of the top 10 states not bordering the Atlantic or Pacific coasts.

The top-performing state economies are identified using a normalized, weighted combination of general economic measures, covering growth, output, and quality of life. The ranking index is weighed in favor of the most important desired outcomes of state economic development policy: job and income growth. The economic performance measures include:

- + Ten-year job growth (3 points)
- + Two-year job growth (3 points)
- + Income growth: growth in per capita personal income (3 points)
- + Livability: median income of four-person household adjusted for state cost of living (2 points)
- + Overall expansion of gross state product (1 point)
- + Productivity: state output per job (1 point)
- + Productivity growth: growth in output per job (1 point)

JOB GROWTH ACCELERATING

Employment Growth, 2012–2014



TOP STATE For Economic Performance



TOP 10 STATES FOR ECONOMIC PERFORMANCE

- 1 North Dakota
- 2 Texas
- 3 Utah
- 4 Washington
- 5 Colorado
- 6 Wyoming
- 7 Oregon
- 8 Iowa
- 9 Massachusetts
- 10 Minnesota



RANKING THE STATES BY GROWTH AND PERFORMANCE

— Metric Definitions

Enterprising States compares states using 33 metrics that measure overall economic performance, along with performance in five important policy areas for job growth and economic health. Data for each measure were collected for each state and normalized on a 1–100 scale. States were ranked according to performance in each topic area, using a weighted index combining each set of metrics.

The heat map matrix on page 36 displays each state's performance on each of the 33 metrics. Each shade of red on the heat map indicates where a state ranks on each metric. Bright green circles indicate a top 10 ranking, while the lighter color indicates a state ranking of 11–25 in the category. Read horizontally across the page for a visual indication of how each state performs across various policy measures.

States are grouped by region, and metrics are grouped by policy area for easy visual comparison with other neighboring states. For instance, the Far West region performs very well in broadband metrics, as shown by the cluster of bright green on the heat map, while the Mid-Atlantic regions perform more poorly in business climate, indicated by sections of lighter color.

Economic Performance

Long-term job growth, 2004–2014.

Percentage job growth between the November 2003–January 2004 average figure and the November 2013–January 2014 average. Source: U.S. Bureau of Labor Statistics Current Employment Survey.

Short-term job growth, 2012–2014.

Percentage job growth between the November 2011–January 2012 average figure and the November 2013–January 2014 average. Source: U.S. Bureau of Labor Statistics Current Employment Survey. Measures recent job shifts.

Real gross state product growth, 2002–2012.

2005 chained dollars. Source: U.S. Bureau of Economic Analysis.

Economic productivity: gross state product output per job, 2012. Total economic output per job: a measure of a state economy's productivity and the presence of high-value industries. Source: U.S. Bureau of Economic Analysis.

Productivity growth: growth in gross state product output per job, 2002–2012.

Percentage change in total economic output per job between 2002 and 2012. This measure indicates a state's shift toward higher-value jobs and industries. Source: U.S. Bureau of Economic Analysis.

Per capita personal income growth, 2003–2013. Change in real income per person, 2003–2013, using annual figures for each year. Growth adjusted for inflation using Consumer Price Index for all Urban Consumers. Source: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics.

Median income for a family of four, adjusted for cost of living, 2012. Source: U.S. Census 2010–2012 American Community Survey and cost of living data calculated by Missouri Economic Research and Information Center using data from Council of Community and Economic Research.

Exports

Export intensity: dollar value of manufactured exports per dollar of gross state product, 2012. Value of exports equalized for the relative size of state economies. Measures the importance of exports to a state's economy. Manufactured exports do not include bulk commodities that tend to be credited to the state where the exporting port is located. Source: U.S. Census Foreign Trade Division, U.S. Bureau of Economic Analysis.

Export intensity growth: change in dollar value of manufactured exports per dollar of gross state product, 2002–2012. Measures increasing or decreasing role of exports in a state's economy. Manufactured exports do not include bulk commodities that tend to be credited to the state where the exporting port is located. Source: U.S. Census Foreign Trade Division, U.S. Bureau of Economic Analysis.

Percentage point change in state share of total national exports, 2003–2013. Measures a state's export performance relative to other states and accounts for overall national export growth or decline. Covers manufactured exports, not including bulk commodities that tend to be credited to the state where the exporting port is located. Source: U.S. Census Foreign Trade Division.

Growth in gross manufactured exports, 2003–2013. Manufactured exports. Source: U.S. Census Foreign Trade Division.

Innovation and Entrepreneurship

STEM job growth: growth in science, technology, engineering, and mathematics jobs, 2003–2013. Increase in the number of computer specialists, mathematical scientists, engineers, engineering technicians, life scientists, physical scientists, social scientists, and life, physical, and social science technicians. Source: EMSI (Economic Modeling Specialists International) 2014.1 Class of Worker: QCEW (Quarterly Census of Employment and Wages) Employees, Non-QCEW Employees, and Self-Employed.

STEM concentration: science, technology, engineering, and mathematics jobs, 2011. Measures concentration of STEM jobs in a state versus the nation. Location quotient is the share of STEM jobs in a state divided by share of STEM jobs in the nation. STEM workers include computer specialists, mathematical scientists, engineers, engineering technicians, life scientists, physical scientists, social scientists, and life, physical, and social science technicians. Source: EMSI 2014.1 Class of Worker: QCEW Employees, Non-QCEW Employees, and Self-Employed.

High-tech business: high technology share of all establishments, 2013. The share of business establishments (locations) that are in high-technology industries. High-technology industry definition includes 44 six-digit NAICS (North American Industry

Classification System) industry sectors in the state, including technology manufacturing sectors, adapted from the industry definition created by TechAmerica. Source: EMSI 2014.1 Class of Worker: QCEW Employees, Non-QCEW Employees, and Self-Employed.

Business creation: rate of new startups, 2012. Total new startups divided by the average of 2011 and 2012 total establishments. Source: National Establishment Time Series.

Academic research and development as a share of gross state product, 2012. Measures the extent to which academic R&D plays a role in the state economy. Funding could come from industry, state, or federal government, or another agency. Sources: National Science Foundation (NSF), National Center for Science and Engineering Statistics, Academic Research and Development Expenditures; Bureau of Economic Analysis, Gross Domestic Product data (June 2013); NSF State Science and Engineering Indicators 2014.

Kauffman Index of Entrepreneurial Activity, 2011–2013. Measures the share of individuals age 20–64 who do not own a business in the first survey month but start a business the following survey month. Source: Kauffman Index of Entrepreneurial Activity, three-year sample, based on data from the U.S. Current Employment Survey.

Business Climate

Small business lending: number of small business loans per 1,000 small business employees, 2011. Source: Statistics of U.S. Businesses; U.S. Small Business Administration, Office of Advocacy from Community Reinvestment Act.

Effects of legal climate on state tort costs, 2011. Percentage reduction in costs possible if a state could match the legal climate of the top-ranked state. The measure is based on an econometric model of the effect of the perception of the legal climate and the amount of legal activity in each state on the cost of liability insurance. Source: U.S. Chamber of Commerce Institute of Legal Reform.

State and local tax burden, 2011. Measures overall tax burden from state and local taxes for fiscal year 2011, reflected as the percentage of income paid by local residents in state and local taxes. Source: Tax Foundation.

State business tax climate index, fiscal year 2014. Index of taxes affecting business. Source: Tax Foundation.

U.S. Small Business Policy Index, 2013. The metric combines 47 measures of government-imposed or government-related business cost measures affecting a wide variety of industries and business types. Source: Small Business and Entrepreneurship Council.

State Cost of Living Index, 2013. Source: Missouri Economic Research and Information Center, using data from Council of Community and Economic Research.

Talent Pipeline

Higher education output: total degrees (two years and higher) awarded at public institutions per 10,000 residents, 2012. Measures degree output and talent production of the state higher education system. Source: National Center for Education Statistics, U.S. Census Population Estimates.

Higher education system efficiency: total expenditures per degree awarded, 2012. Total public state expenditures for higher education per degree conferred at public universities. Includes degrees and certificates awarded at all levels: certificates below the baccalaureate level, and associate's, bachelor's, master's, and

doctoral degree completions. Figures adjusted for the mix of state degrees awarded and for labor and living costs in each state. Source: National Center Education Statistics, State Higher Education Executive Officers.

College affordability: average undergraduate charge at public four-year institutions as a share of disposable personal income, 2013. Measures degree affordability adjusted for state income levels. Source: National Center for Education Statistics, U.S. Bureau of Economic Analysis.

Educational attainment: associate and higher degree holders among 25- to 44-year-old population, 2012. Source: U.S. Census American Community Survey, 2012.

Share of high school seniors scoring 3 or above on Advanced Placement exams, 2013. Measures the extent to which a rigorous curriculum is successfully completed by students in secondary schools. Source: College Board, Advanced Placement Report to the Nation.

Labor force utilization: labor force participation rate, February 2014. Share of the working-age population (age 16–65) employed or actively seeking employment. Source: U.S. Bureau of Labor Statistics.

Infrastructure

Broadband capacity: share of households with at least 25 Mbps downstream broadband availability, 2013. Source: U.S. National Broadband Map.

Broadband availability: share of households with at least five broadband service providers available, 2013. Source: U.S. National Broadband Map.

Road quality: percentage of road miles rated mediocre or poor, 2011. Source: Road Roughness Index, Federal Highway Administration.

Share of bridges rated structurally deficient or functionally obsolete, 2012. Source: Federal Highway Administration, National Bridge Inventory.

Heat Map

	Far West						Great Lakes					Mid-Atlantic					New England					
Performance	AK	CA	HI	NV	OR	WA	IL	IN	MI	OH	WI	DE	MD	NJ	NY	PA	CT	ME	MA	NH	RI	VT
Long-Term Job Growth	🟢		🟡	🟡	🟡	🟢									🟡				🟡			
Short-Term Job Growth		🟢	🟢	🟢	🟡	🟡		🟡	🟡		🟡	🟡							🟡			
Gross State Product Growth	🟡	🟡	🟢	🟢	🟢	🟢						🟡	🟡									
Economic Output per Job	🟢	🟢	🟡	🟡	🟢	🟢	🟡	🟡				🟢	🟡	🟢	🟢	🟡	🟢		🟢		🟡	
Productivity Growth		🟡	🟡		🟢	🟢		🟡				🟡	🟢						🟡	🟡		🟡
Per Capita Income Growth	🟡		🟡										🟡		🟢	🟡	🟡		🟡	🟡	🟡	🟡
Adjusted Median Family Income						🟡	🟢	🟡	🟡	🟡	🟢	🟡	🟢	🟡		🟡	🟡		🟢	🟡		

Exports

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Innovation & Entrepreneurship

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Business Climate

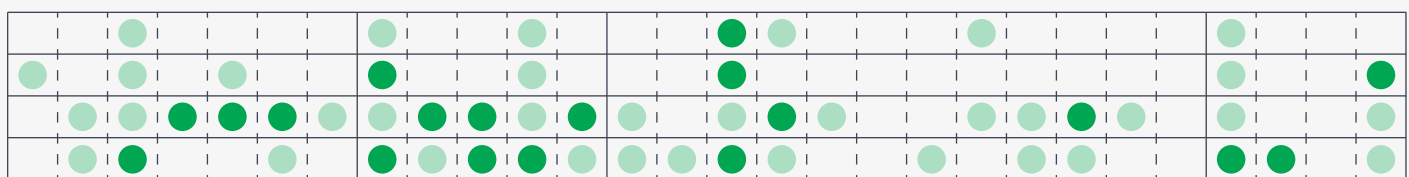
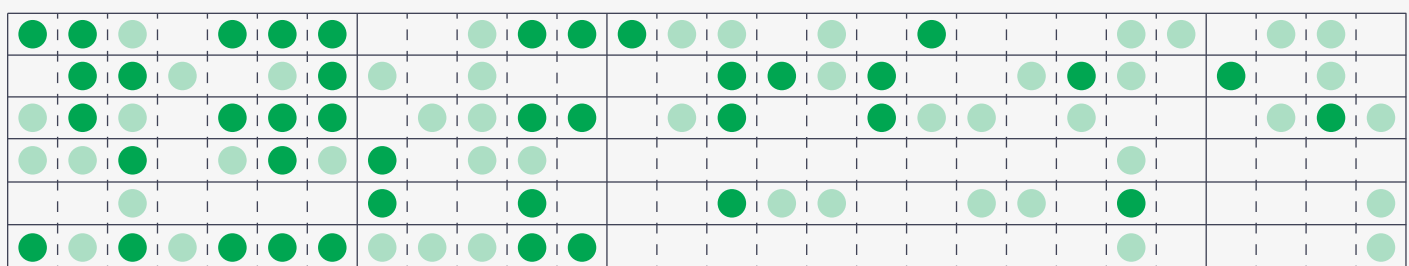
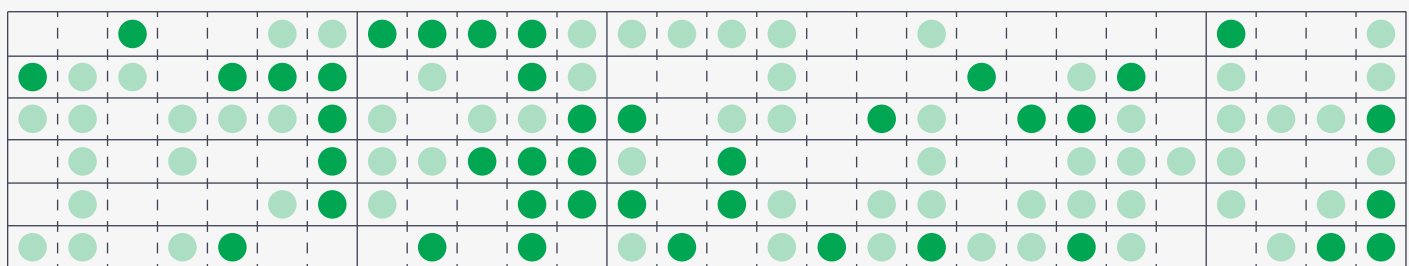
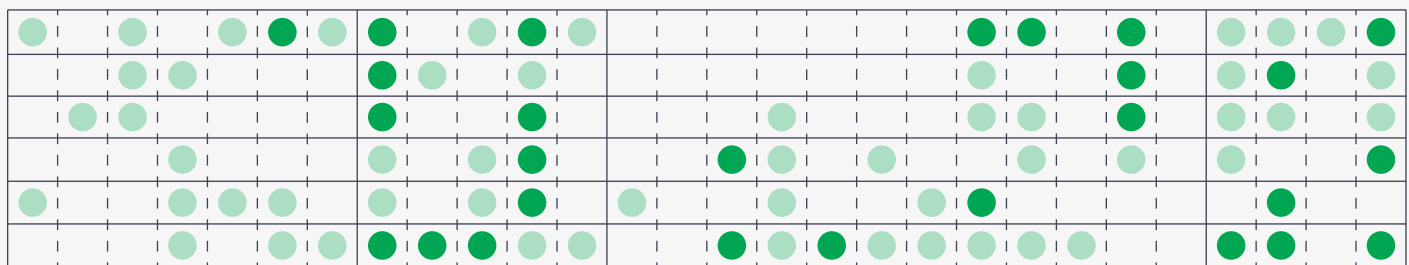
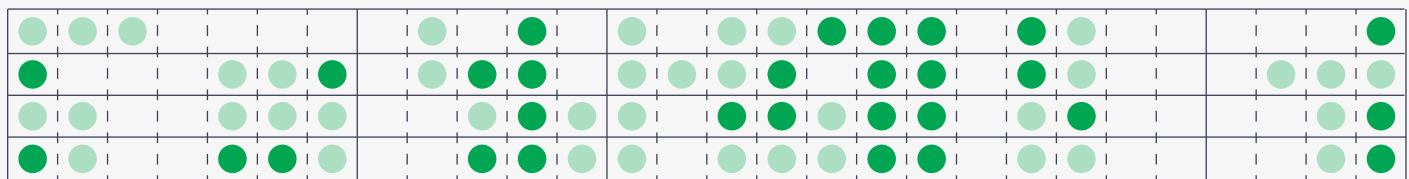
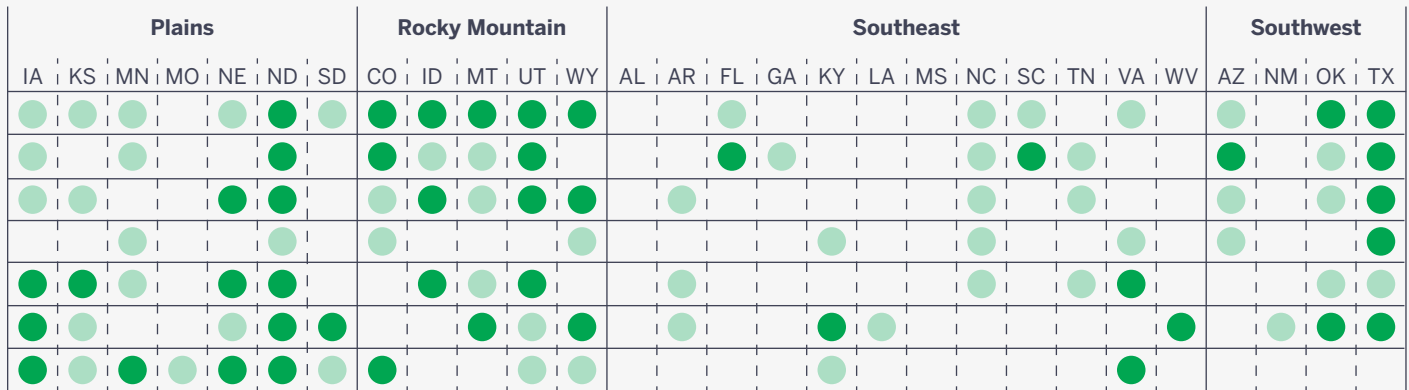
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Talent Pipeline

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Infrastructure

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STATE PROFILES



ALABAMA

Under the leadership of Governor Robert Bentley, Alabama has made reform and improvement of its workforce development and job skills training a major agenda item. Since taking office in 2011, the Bentley administration has pursued several notable workforce-related initiatives. In 2011, the governor directed the state's university system to continue to develop and streamline workforce training programs at community colleges statewide, and ordered an examination and realignment of the state's economic development activities.

In 2013, Bentley launched a College and Career Ready Task Force. Made up of business and education leaders, the group was charged with identifying ways to better prepare students for the workforce by training them in the skills demanded by growing industries across the state. The overall goal of the group was to close skills gaps in the state by increasing communication between educators and business leaders, building effective partnerships to give students “the knowledge and skills necessary to move seamlessly” into the workforce.⁷⁰ One notable recommendation made by the task force was the creation of a statewide council of business leaders tasked with advising educators on the workforce needs of industry. This recommendation was adopted by the state legislature in early 2014, creating a valuable new point for industry input into workforce policy in the state.

Alabama offers workforce development services to new and expanding businesses through the Alabama Industrial Development Training program (AIDT), an independent, state-sponsored agency run through the state’s Department of Commerce. Built around the concept of providing a “total workforce delivery system,” AIDT offers a variety of services to businesses in need of skilled workers, including preemployment selection and training, leadership development courses, and third-party process improvement assessments. Training and other support is offered through a network of training centers and affiliates, and several project-based facilities co-located with major manufacturing firms.

Skills training for Alabama’s manufacturing and high-technology workforce is provided by the Alabama Technology Network, an initiative led by the state’s community college system. The network connects businesses to the portfolio of training resources and programs provided by the state’s colleges and universities, offering services through regional centers. The program works to connect the community colleges to four-year universities in the state.

The Alabama Community College System (ACCS) also works with the Governor’s Office of Workforce Development and regional workforce development councils to offer competitive grant funding for workforce training solutions. Qualified projects must provide high-wage, high-skills jobs in target industries, and align with regional workforce development goals. Businesses must work in partnership with an ACCS member institution to access the funding, but can seek training resources from outside the system to supplement program delivery.

Alabama is also expanding its efforts to attract talented workers into construction and the skilled trades through its Go Build Alabama initiative. In addition to promoting such careers, the initiative provides individuals with information on career pathways and training options, including apprenticeships and community college courses. Go Build Alabama is also conducting outreach to elementary schools, to let them know about careers in the trades. It has sponsored events such as the If I Had a Hammer program, which exposes 5th graders to the importance of mathematics and science in construction, opening up new career options to students at a young age.

Source on pages 33–35

U.S. Business Policy Index	7	Academic R&D Intensity	16
State and Local Tax Burden	9	Export Growth	18
Higher-Ed Degree Output	10	Export Intensity Growth	21
Export Intensity	11	Business Tax Climate	21
Road Quality	13	Bridge Quality	21
Growth in Share of National Exports	14	Small Business Lending	22



ALASKA

Looking to support small business job creation in the state, Alaska's legislature adopted reforms to the state's corporate tax code in 2013. Under the new tax structure, the starting point of the highest tax bracket was raised, and the lowest tax bracket was dropped from 1% to 0%, reducing the tax burden faced by new and existing small businesses in the state. In addition to embracing more business-friendly tax policies, Alaska supports access to capital for new and growing small enterprises. The Alaska Microloan program offers funds that can be used by small businesses as working capital, to buy and install equipment, or for construction

and expansion. The state requires that money from private lenders and other sources be involved in funded projects, helping to maximize the impact of loans. The state also offers small businesses access to larger loans through its Small Business Economic Development loan fund. Loans require matching outside funding, and are typically targeted at businesses in communities with populations under 30,000, providing enhanced support for small business job creation and expansion in the state's more rural areas.

Alaska's leaders have also prioritized access to natural gas as a key economic development priority. Seeking to bring the state's rich supplies of gas to "Alaskans first, and then to markets beyond,"⁷¹ the state passed legislation enabling it to partner with private industry in a major liquid natural gas project, offering better access to gas for industry and public use. The state also created the Alaska Gasline Development Corporation (AGDC) in 2010, tasked with "planning, constructing, and financing in-state natural gas pipeline projects."⁷² Provided with expanded funding by the state legislature in 2013, AGDC is working with the private sector to bring new pipeline projects online that will bring stranded gas to market, creating jobs and giving Alaskan industry access to an untapped source of energy.

Alaska is committed to strengthening its workforce by helping Native Alaskans access STEM career pathways. The state's Alaska Native Science and Engineering Program (ANSEP) works with public and private partners to support a variety of programs aimed at helping native youth chart an educational pathway leading to science and engineering degree programs. Starting with students in 6th grade, ANSEP offers mentoring, study groups, educational courses, and social networking designed to help students prepare for careers in science and engineering.

Governor Sean Parnell has made continued support for vocational and technical education part of his comprehensive education bill, identifying better skills development as one of his priorities for growing the state's economy. The state's Technical Vocational Education Program (TVEP) offers grants to support the establishment and improvement of career and technical education programs around the state. The initiative looks to fund programming that meets the needs of industry, working to address regional workforce needs and industry goals identified by the Alaska Workforce Investment Board. Governor Parnell proposed legislation bringing TVEP-funded job training programs into greater partnership with the state's schools, in order to offer credit toward career certifications for Alaska's high school students. The state also offers an Alaska Youth First grant program, designed to fund career-awareness activities for Alaskan youth. The program funds a variety of programming, including placement of career guides in schools, teacher-industry externships, work experience programs, and innovation grants to support training of youth for growth industries including construction and health care.

Source on pages 33–35

Economic Output per Job	2	STEM Job Growth	7
Kauffman Entrepreneurship Index	2	Legal Environment	7
Small Business Lending	2	STEM Job Concentration	10
State and Local Tax Burden	2	Labor Force Utilization	11
New Startup Rate	3	Per Capita Income Growth	14
Business Tax Climate	4	Gross State Product Growth	18
College Affordability	4	U.S. Business Policy Index	20
Long-Term Job Growth	5	Bridge Quality	25



ARIZONA

Governor Jan Brewer's Four Cornerstones of Reform economic competitiveness agenda includes a focus on workforce development and skills education, arguing in favor of more funding for STEM and workforce training at Arizona's rural community colleges, in order to "provide additional workforce training programs"⁷³ to rural populations throughout the state. Governor Brewer and state leaders have also enhanced the state's efforts to bring together industry and education leaders to reform and improve Arizona's education and workforce development outcomes.

The Governor's Office of Education Innovation measures progress in improving the state's school system through its education reform plan, Arizona Ready. Arizona Ready was the product of a collaboration between business and education stakeholders, all interested in improving educational outcomes at all levels, including the state's workforce development system. The initiative has set a number of goals designed to improve Arizona's economic competitiveness, including improving high school graduation rates and doubling the state's number of college graduates. The plan, launched in 2011, will run through 2016, making use of data collected to measure progress and direct further efforts.

As part of the state's five-year Integrated Workforce Plan, Arizona has embraced a number of cross-program strategies to bring together economic and educational stakeholders to enhance skills training and education in the state. This has included a new focus for economic development programs in the state, embracing the creation of industry-specific partnerships to better tailor state and local efforts. The partnerships coordinate private and public efforts, in order to "accurately meet industry's skill needs, help job seekers succeed, and make scarce resources go further."⁷⁴ The state is taking a decentralized approach to deployment, organizing its programming around several regions, with each region identifying target industries for enhanced development efforts.

Arizona is working to leverage its system of community colleges to connect students to new opportunities and help them pursue four-year degrees. AZTransfer.com offers prospective students information on how credits earned at community colleges can transfer over to the state's four-year schools, helping them better plan their educational path. By helping make the transfer process more transparent, the program hopes to help more community college students transition to four-year degrees, providing the future talent Arizona business needs to thrive.

Public four-year universities in the Arizona higher education system have also committed to adopting an "enterprise model" for their operations. As part of this model, the system has set aggressive goals to increase graduation numbers and plans to enhance partnerships with community colleges and the private sector. The model also envisions tying funding formulas and program offerings to state economic growth, while eliminating underperforming programs and looking to potential privatization of some programs and training offerings. The overall goal of the new focus is to ensure that Arizona's universities are providing affordable skills training options to students, while providing the state and its businesses with the pool of talent they need to compete economically in the 21st century.

Source on pages 33–35



Higher-Ed Efficiency	2	STEM Job Concentration	15
Bridge Quality	2	Legal Environment	17
Small Business Lending	4	State and Local Tax Burden	17
Short-Term Job Growth	8	Broadband Provider Availability	17
Kauffman Entrepreneurship Index	10	Broadband Speed Availability	18
Long-Term Job Growth	12	New Startup Rate	21
High-Tech Share of All Businesses	13	Business Tax Climate	22
U.S. Business Policy Index	13	Road Quality	24
STEM Job Growth	14	Economic Output per Job	24
Gross State Product Growth	15		



ARKANSAS

Seeking to improve workforce development coordination in Arkansas, Governor Mike Beebe created a Governor's Workforce Cabinet. Made up of representatives from multiple government agencies and education associations, the Workforce Cabinet is tasked with reducing duplication of effort among the state's multiple workforce stakeholders, while finding new ways to align and share resources found within the state.

Since its creation in 2007, the cabinet has launched multiple reforms and initiatives. In 2009, the cabinet came together with the Arkansas Chamber of Commerce to create Arkansas Works, an Internet-based career and education planning tool for students and job seekers. Arkansas Works has also piloted an initiative placing career and college coaches in economically distressed communities throughout the state, helping individuals access new career pathways and educational options. Arkansas Works also offers access to information on training programs and assistance programs, helping state residents identify and access promising career training opportunities. Cabinet agencies have also worked to implement a Middle Skills Jobs program designed provide industry-specific training for occupations requiring “post-secondary training less than a baccalaureate degree.”⁷⁵

The Governor’s Workforce Cabinet has also identified STEM skills training as an area of priority action for Arkansas. In 2012, the cabinet kicked off a new STEM Works initiative, selecting 16 schools and technical centers across the state to pilot the program. Participating educational institutions receive funding to integrate STEM project-based learning into their curriculum and to add new courses in STEM-related fields. The goal of the project is to expand student exposure to STEM careers, spurring more students to pursue STEM-related degrees and career pathways, building the talented workforce needed to spur industry growth in the state.

Arkansas is embracing credential certification through its Arkansas Career Readiness Certificate (CRC) program. The CRC program identifies the skill set needed for jobs, and provides certification that potential employees have the basic skills needed to meet the needs of a position, giving employers more information and assurance of employee aptitude when hiring. The program is designed to increase positive experiences in hiring, training, and retaining employees, helping businesses grow and prosper by easing access to the talent they need.

Specialized training for manufacturers is provided by the Arkansas Manufacturing Solutions (AMS) program. An initiative of the Arkansas Science and Technology Authority, AMS offers qualified businesses access to a Training Within Industry (TWI) program. Focused on implementing lean manufacturing techniques, the TWI program embraces a “learn by doing” strategy, providing access to certified AMS trainers to help design training focused on improving workplace skills and increasing productivity.

Arkansas is increasing the data it has available to make good decisions regarding the future of its education and workforce training systems. The state’s Arkansas Education to Employment Tracking and Trends Initiative brings together five agencies to gather data on the career pathways of college graduates and workforce training recipients, tracking their outcomes to inform future policy decisions and create better programs to support business in the state.

Source on pages 33–35



Cost of Living	9	College Affordability	23
Higher-Ed Degree Output	12	Bridge Quality	23
Per Capita Income Growth	16	Gross State Product Growth	25
Productivity Growth	18	Export Intensity Growth	25
Small Business Lending	21		



CALIFORNIA

California created 447,400 jobs in 2013, representing a 3% change in nonfarm employment for the year. This is the fastest rate of growth in jobs since the year 2000, an expansion that placed California 4th among the states in this year's rankings of short-term job growth for the past two years. California also ranked 3rd in the Kauffman Entrepreneurial Index, putting the state squarely in front of this growing trend in the American economy.

For the first time, the state's gross domestic product topped \$2 trillion, marking California as the world's 10th-largest economy. All economic sectors showed improvement, with manufacturing, information, finance, and tourism ahead of the pack. In 2013, California exports amounted to more than \$168 billion, an increase from the 2012 total of \$161.9 billion, which accounted for 10% of total U.S. exports. Computers and electronic products are California's top export, accounting for a quarter the state's exports. According to Tech America, California is the 2nd-largest tech-exporting state after Texas.

California's renowned innovation economy continued its national dominance in venture capital investments in 2013, accounting for 40% of all venture capital deals and 50% of the total money invested according to the National Venture Capital Association and PricewaterhouseCoopers *Moneytree* survey.

Governor Jerry Brown hopes to further solidify California's leadership in innovation by signing legislation to expand the state's Innovation Hub centers (iHubs). The legislation established four new iHubs, expanding to 16 the largest network of state-sponsored innovation clusters in the United States. iHubs bring together key resources to support manufacturing, aerospace, defense, energy, health care, and agribusiness, allowing regions all over the state to better capitalize on new technologies and support homegrown startup businesses that create California's new jobs. Each iHub has a specific focus, which is determined in part by the availability of specialized resources in the region that it serves.

California has one of the most productive science-, technology-, and engineering-oriented economies in the nation, ranking 6th for GDP per job (2012) and 7th for STEM job concentration (2013). The latter trend is expected to continue as the number of jobs in STEM fields in California

is projected to swell by 22% through 2020, according to a report by the Georgetown University Center on Education and the Workforce. The study also projects that education services will grow by 32%; professional, scientific, and technical services by 27%; and mining, quarrying, and oil and gas extraction by 38%. Overall, a combination of new jobs and retirements will create 6.3 million openings in the state during that period.

Many initiatives are in place to improve the quality of STEM education and further engage students in California. The California STEM Learning Network addresses key STEM learning challenges by building coherence among California's many STEM-related programs and identifying solutions that can be addressed by a concerted statewide effort. The Power of Discovery—STEM2, a project of the California STEM Learning Network and California After School Network, is an effort to build on the JumpStarting STEM pilot that will enhance school-based STEM instruction and expand out-of-school STEM learning opportunities. STEM2 is working with three regional partnerships to foster leadership, build effective alliances between after school providers and schools, and provide professional development and other supports that ensure the expansion of quality STEM learning opportunities.

Source on pages 33–35



Small Business Lending	4	Legal Environment	17
Short-Term Job Growth	8	State and Local Tax Burden	17
Kauffman Entrepreneurship Index	10	Broadband Provider Availability	17
Long-Term Job Growth	12	Broadband Speed Availability	18
High-Tech Share of All Businesses	13	New Startup Rate	21
U.S. Business Policy Index	13	Business Tax Climate	22
STEM Job Growth	14	Road Quality	22
Gross State Product Growth	15	Economic Output per Job	24
STEM Job Concentration	15		



COLORADO

Colorado is a leader in measures of technology and entrepreneurship, offering a strong support network for innovators. One such example is the Colorado Innovation Network (COIN), a division of the state's economic development office. Created in 2011, COIN is privately funded, putting industry support behind the state's efforts to create an environment friendly to technology startups. COIN brings together government, business, and other stakeholders to identify new ways to support innovation in Colorado. This includes issuing a report on the state of innovation each year, recommending action items, and measuring progress.

The state is also undertaking efforts in partnership with educational leaders to create a Colorado STEM Education Roadmap and Action Plan. This three-year project, scheduled to be completed in 2016, will bring together science, technology, mathematics, and engineering stakeholders to identify a vision and action items, set metrics to measure progress, and identify best practices and successful programs that can be replicated across the state at scale.

Colorado Leveraging Assets for Better Science (CO-LABS) is a nonprofit organization that brings together federal labs, research universities, government, economic developers, and business to support research collaboration and to educate the public about innovative activity happening at federal research labs throughout the state. CO-LABS also facilitates interactions among federal labs, higher education, and business, looking to find ways to enhance technology transfer and creation of high-tech companies and jobs in the state.

In 2013, Colorado lawmakers passed and Governor John Hickenlooper signed the Advanced Industry Accelerator Act. The bipartisan act provides three types of grant funding to support the establishment and growth of advanced technology industries in the state. Each grant type is aimed at supporting companies in different stages of their life cycle. Grants available include proof-of-concept grants, early-stage capital and retention grants, and infrastructure grants. The proof-of-concept grant, focused on the earliest stages of company startup, offers three dollars of state grant funding for each dollar of private match. The other two grants, for companies later

in the process of establishment, require two dollars of private match for each dollar of state grant funding. The infrastructure grants, with the highest cap of all three offerings (\$500,000 per award) are intended to be used to enhance the commercialization of an innovative Colorado technology, and for workforce development activities needed to help an advanced industry company get their employees up to speed during the commercialization process.

Businesses seeking to implement job training programs in Colorado have access to two types of grant funding from the state's Customized Job Training program. The Colorado FIRST grant offers up to \$800 per employee for training new hires at companies relocating to or expanding in the state. The state also offers grants to support training of established employees through its Existing Industry training program. The grants are offered in partnership with the state's community college system, which works with the businesses to create and implement training programs tailored to their specific needs. Eligible businesses are required to contribute 40% of the costs of funded training.

Source on pages 33–35

High-Tech Share of All Businesses	1	New Startup Rate	12
Small Business Lending	1	Academic R&D Intensity	13
Kauffman Entrepreneurship Index	4	Labor Force Utilization	13
Broadband Provider Availability	4	U.S. Business Policy Index	14
Short-Term Job Growth	5	Higher-Ed Efficiency	14
STEM Job Concentration	5	Economic Output per Job	18
Adjusted Median Family Income	7	State and Local Tax Burden	18
Long-Term Job Growth	8	Business Tax Climate	19
H.S. Advanced Placement Scores	9	Gross State Product Growth	22
Bridge Quality	9	Broadband Speed Availability	25
STEM Job Growth	10	Road Quality	25
Educational Attainment	10		



CONNECTICUT

Apprenticeships are an important part of Connecticut's workforce talent improvement strategy. Administered through the Department of Labor, the state's Office of Apprenticeship Training works in partnership with industry and labor unions to connect job seekers to apprenticeship opportunities. Apprenticeship in several targeted industries, including manufacturing and construction, is supported by the state's Registered Apprenticeship Grant program. Qualified apprenticeship programs can receive grants covering up to 50% of their wage costs during the beginning years of an apprenticeship, helping reduce the cost of bringing on and

training new workers. The state also maintains a system of apprenticeship tax credits for select industries, providing employers with credits based on the number of hours completed by an apprentice during the course of their training. During the 2013 legislative session, state policymakers approved increasing the maximum tax credit available to Connecticut manufacturers.

Foundations and private industry in Connecticut are stepping up to the plate to help meet the need for skilled workers and entrepreneurs. One such example is the Connecticut Center for Arts and Technology (ConnCAT), a nonprofit “post-secondary career training hub”⁷⁶ supported by multiple foundations, community organizations, and public, private, and education sector partners. ConnCAT offers multiple programs designed to connect individuals to skills training and career options. This includes career pathways training and support services, and classes in specific medical technology fields. In addition to its adult programs, ConnCAT offers youth programs designed to set students on a path toward success through multimedia arts education. The center also recognizes the importance of entrepreneurship to sustainable economic growth, operating an entrepreneurial academy to train and mentor aspiring entrepreneurs, working in partnership with local universities and businesses.

Connecticut, like many states, has increased its focus on bridging the transition from the military to the workforce for discharged service members. In 2013, the state eased requirements for veterans looking to access its Unemployed Armed Forces Subsidized Training and Employment initiative. Prior to the reforms, veterans were required to have served in a combat zone. With that requirement waived, more veterans will be able to take advantage of the program, which provides a six-month subsidy for training and wages to businesses that hire an unemployed veteran, easing the costs of hiring a veteran and providing them with access to valuable on-the-job training.

The Connecticut Energy Workforce Development Consortium (CTEWDC) is a private-public partnership aimed at meeting the workforce needs of the state’s energy industry, including the renewable and energy-efficiency sectors. The consortium represents more than 50 private sector members working in partnership with stakeholders from government and education. The consortium works to raise the profile of careers in the energy industry throughout the state, and identify strategies to build strong energy career pathways for Connecticut students and job seekers. The consortium connects businesses and other stakeholders to grant funding for training program implementation. CTEWDC also provides information on the state’s various energy career training options, internships, and scholarships, and provides toolkits and training materials for businesses and educators interested in supporting enhanced access to energy industry skills training.

Source on pages 33–35

H.S. Advanced Placement Scores	2	College Affordability	18
Broadband Speed Availability	3	Adjusted Median Family Income	19
Economic Output per Job	4	Per Capita Income Growth	20
Educational Attainment	6	Labor Force Utilization	20
High-Tech Share of All Businesses	16	Broadband Provider Availability	20
STEM Job Concentration	17	Export Intensity	22
Kauffman Entrepreneurship Index	18	Academic R&D Intensity	23



DELAWARE

In need of more skilled workers to support the state's manufacturing sector, education and industry stakeholders have come together to create a new Accelerated Career Paths program for high school students. The initiative, launched as a partnership of the Delaware Manufacturing Association, Delaware Technical Community College, and school districts throughout the state, will offer high school juniors and seniors the opportunity to take specialized courses to obtain a professional manufacturing certification upon graduation. In addition to classroom-based education, students will take part in on-the-job training during the summer and participate in community

college-based training, preparing them to rapidly enter the workforce upon graduation.⁷⁷

Delaware has also engaged industry to help build a stronger talent pipeline, particularly in STEM industries. Working together with Junior Achievement of Delaware, the Delaware STEM Council is focusing on bringing volunteer STEM professionals into the state's classrooms. The new It's My Future initiative, supported by Governor Jack Markell's administration through the Governor's STEM Council, will focus on exposing middle school students to career opportunities in STEM industries and building the overall STEM literacy of Delaware students.

The Delaware Economic Development Office (DEDO) supports workforce development in the state through its Blue Collar Training Fund. Offered through the office's Workforce Development Center, the initiative offers matching grants to businesses investing in customized training for full-time employees in "entry level through Front-line supervisory positions."⁷⁸ DEDO also partners with the Delaware Higher Education Office to offer the Governor's Workforce Development Grants. The grants provide up to \$2,000 per academic year to help unemployed and underemployed "adult students seeking to acquire new or enhanced skills that will permit them to increase their earning potential in present or future employment."⁷⁹ The grants can be used at nonprofit Delaware universities and colleges, and at training programs at vocational-technical schools throughout the state.

Delaware's Department of Education has also made the development of soft skills a point of focus through its Soft Skills Career Essentials initiative. The program works with employers to identify needed training in business soft

skills, such as workplace communication and behavior, that improve productivity and worker retention. The initiative provides a curriculum that can be customized to business needs, and taught individually, in teams, or in classroom settings.

Access to capital for new and growing businesses in Delaware is enhanced through the use of several state programs. The Delaware Strategic Fund offers low-interest loans and grants to companies for multiple uses, including augmenting working capital, expanding its workforce, and purchasing new equipment. The program is aimed at attracting new companies to the state and helping existing Delaware companies grow in size. The state also works to encourage private investment in Delaware enterprise through its Delaware Capital Access Program. The program works with lenders to provide portfolio insurance on loans to small businesses in the state, reducing the risk of providing capital to Delaware businesses. The program is built around a risk-pooling concept, and involves a public-private match of premium payments. The goal of the program is to give private lenders more flexibility in offering capital to Delaware entrepreneurs, stimulating business growth and job creation.

Source on pages 33–35

Economic Output per Job	1	Adjusted Median Family Income	17
High-Tech Share of All Businesses	4	Growth in Share of National Exports	18
New Startup Rate	5	Export Intensity	20
STEM Job Concentration	6	Export Intensity Growth	20
Broadband Speed Availability	6	Gross State Product Growth	21
Export Growth	9	H.S. Advanced Placement Scores	23
Business Tax Climate	12	Kauffman Entrepreneurship Index	25
Short-Term Job Growth	14	Small Business Lending	25
Productivity Growth	14	Educational Attainment	25
Bridge Quality	16		



FLORIDA

Florida's workforce development infrastructure offers incentives to help employers build the skills of their new and existing employees. The state's Quick Response Training program allows businesses in need of training for expansion to partner with community colleges and other educational institutions in the state to develop and deliver workforce training programs. The program allows for outside training and private vendors, but works through the educational institution to deliver funding, building public-private partnerships in support of skills development. Florida's Incumbent Worker Training program supports training of the existing

workforce to enhance and maintain competitiveness. Businesses are required to have been in operation in Florida for one year, and priority is given to companies in target industries and areas in need of particular attention, including economically distressed and rural communities.

Governor Rick Scott has made increased funding for STEM career training one of his priorities for 2014, proposing \$30 million to launch a new training program as part of his budget. This new Workforce State Training Program would include training funds and scholarships for promising students, while offering companies flexibility in use of funds to meet industry needs in a competitive marketplace. The Scott administration had previously supported and implemented continued funding for skills training toward high-wage jobs in its 2013 budget, in addition to increased economic development incentives to better position the state for economic growth.

The Career and Professional Education Act guides Florida's efforts to diversify its economy and develop a more skilled workforce by encouraging collaboration among education, industry, workforce, and economic development stakeholders from across the state. The project unifies the state's efforts around the needs of the market and industry to enhance the effectiveness of government investments. Under this structure, CareerSource Florida operates as an industry-led workforce development board, appointed by the governor and legislature, setting the agenda for the state's 24 regional workforce boards. To ensure even more business input, each of these boards has its own local business-led leadership structure. The system operates more than 100 career centers, aligning multiple service providers under a new "unified workforce brand" beginning in 2013. As part of this new brand, the state plans to find new ways to expand business involvement in workforce

development, through a new steering committee that will meet throughout 2014 to identify ways to make the system work better and bring more businesses to the table.

Ranked highly for its infrastructure, Florida continues to offer an infrastructure investment program designed to directly spur job creation. The Economic Development Transportation Fund, also known as the state's "Road Fund," provides state grants of up to \$3 million to local governments to help deal with transportation issues that might otherwise keep a company from locating in Florida. Funding for projects is capped at \$7,000 per new job created by the enterprise being established or relocated in Florida. By increasing local government capacity to deal with infrastructure issues, the state is able to help attract more private sector investment to the state, creating jobs and economic growth.

Source on pages 33–35

Higher-Ed Efficiency	1	Broadband Speed Availability	9
New Startup Rate	2	Kauffman Entrepreneurship Index	10
Business Tax Climate	5	Export Intensity Growth	12
U.S. Business Policy Index	5	Small Business Lending	15
H.S. Advanced Placement Scores	5	Road Quality	17
Broadband Provider Availability	5	Export Intensity	18
Short-Term Job Growth	7	Higher-Ed Degree Output	18
Growth in Share of National Exports	8	State and Local Tax Burden	20
Bridge Quality	8	Export Growth	22
College Affordability	9	Long-Term Job Growth	25



GEORGIA

Georgia is a strong overall performer in this year's rankings, with top 20 rankings for exports (17th), business climate (17th), technology and entrepreneurship (19th), and infrastructure (8th). Its 13th-place showing in short-term job growth between 2012 and 2014 is clear evidence that the state's job creation engine is running on all cylinders.

Since taking office, Governor Nathan Deal has stressed that economic development begins with strong schools. Consequently, his administration has focused on five strategies to improve Georgia's public education:

1. Increase the percentage of Georgia students who are able to read at the 3rd-grade level by completion of 3rd grade
2. Increase the percentage of Georgians who hold a postsecondary credential
3. Increase the percentage of teachers and principals who are considered effective
4. Increase teacher competency and student proficiency and achievement in STEM
5. Empower citizens with public school options and local flexibility to improve student achievement

Governor Deal proposed, and in early 2014 the General Assembly approved, a \$44.7 million Science Learning Center on the University of Georgia's South Campus, providing state-of-the-art facilities aimed at expanding the pipeline for students in the STEM disciplines.

Groundbreaking also took place for the Georgia BioScience Training Center, which will support training for companies that choose to locate within the state. Georgia Quick Start, the state's job training program, will build and operate the state-of-the-art biotech training center. The center will provide fully customized training programs that meet companies' needs and build capacity and curricula within the Technical College System of Georgia to support a long-term pipeline of employees well trained in biomanufacturing operations.

Georgia Tech launched a crowdfunding resource for university-based students and faculty. Georgia Tech Starter will give science and engineering researchers an alternative source of funding in a time of restricted government grants. Unlike other crowdfunding services, online investors in the research will not receive any tangible rewards, although they may receive a tax deduction. In addition, the university will provide project review, administration, and facility upkeep.

Georgia's export shipments of merchandise in 2013 totaled \$37.6 billion, an increase of 4.6% from 2012. The state's largest merchandise export category is transportation equipment, which accounted for \$9.8 billion of Georgia's total merchandise exports in 2013. Other top merchandise exports are machinery, except electrical (\$4.5 billion), chemicals (\$3.7 billion), paper (\$3.6 billion), and food and kindred products (\$2.8 billion).

The Georgia Department of Economic Development (GDEcD) received the Presidential "E Star" Award for excellence in providing export programs and services. GDEcD's International Trade Division aims to match Georgia suppliers with international buyers offering export promotion services to Georgia companies, in addition to using the state's international representatives in 11 strategic global markets. More than 14,500 Georgia companies exported goods and services to 230 countries and territories in 2013. After a record year in exports, Georgia is now the 11th-largest exporting state based on dollar value of exports.

Source on pages 33–35

Road Quality	1	Export Intensity	17
Higher-Ed Efficiency	3	Cost of Living	17
Export Intensity Growth	9	Broadband Speed Availability	17
Growth in Share of National Exports	9	New Startup Rate	19
High-Tech Share of All Businesses	12	U.S. Business Policy Index	22
Bridge Quality	12	Kauffman Entrepreneurship Index	23
Short-Term Job Growth	13	Small Business Lending	23
State and Local Tax Burden	15	Legal Environment	23
H.S. Advanced Placement Scores	15	Academic R&D Intensity	25
Export Growth	16		



HAWAII

Hawaii's Workforce Development Division offers businesses in the state access to several programs intended to help them improve the skill level of their workers, both new and existing. The state's Employment and Training Fund (ETF) has been in operation for more than 20 years, offering grants in support of skills training at large and small businesses. The program is divided into two levels: ETF Macro grants, and ETF Micro grants. ETF Macro is focused on "industry-specific training," with funds intended to be used to help develop and implement new training programs that don't yet exist in the state. ETF Micro grants are targeted at funding training in previously

existing courses, covering up to 50% of the costs of eligible training classes.

Apprenticeships are another tool used to offer job seekers skills training and access to career paths in Hawaii. The state has more than 30 registered apprenticeship programs available, with many focused on educating individuals to enter the skilled trade fields as plumbers, electricians, and carpenters. In addition to managing apprenticeship partnerships, the Workforce Development Division offers employer outreach services to Hawaiian businesses, including incumbent worker training programs, labor data, access to internship programs, and connections to job seekers.

Governor Neil Abercrombie's action plan includes education and workforce development as a key step in his goal of "investing in people." The state is implementing reforms of K–12 education administration, and has made progress in increasing community college graduation rates and enrollment of Native Hawaiians. The administration announced more than \$40 million in facility upgrades to community colleges during 2014, including the construction of a new Advanced Technology Training Center at the Honolulu Community College. The new center is intended to, among other purposes, support workforce development activities and skills training in several technical fields.

Hawaii's new HI Growth initiative, launched in 2013, provides more than \$20 million in investment capital focused on building the state's innovation and technology sector through targeted investments. The program includes funding for entrepreneurship development, aiming to create a "Startup Paradise" brand to promote business creation. This support of innovative entrepreneurs includes the creation of the Launch Akamai Venture Accelerator, a \$2 million initiative to provide promising business startups with mentoring and capital to help them grow and thrive.

HI Growth has also targeted creation of a Proof of Concept Center as a key goal to ease commercialization of research conducted by innovative companies and universities in the state. The program also plans to work with publically and privately funded venture capital networks to connect innovators with additional capital to build their businesses.

To protect small businesses in Hawaii from unnecessarily harsh regulation, the state maintains a Small Business Regulatory Review Board. Made up of current and former business owners, the board comments on the impact of proposed regulations on small businesses, reviews the impact of existing rules and regulations, and makes recommendations to state and local government regarding regulatory changes in the best interest of small businesses in Hawaii. The state also maintains a "Hawaii Small Business Bill of Rights," outlining the rights entrepreneurs have when interacting with government agencies and officials.

Source on pages 33–35



Gross State Product Growth	8	Academic R&D Intensity	15
New Startup Rate	8	Kauffman Entrepreneurship Index	18
Broadband Speed Availability	8	Legal Environment	19
Short-Term Job Growth	10	College Affordability	19
Broadband Provider Availability	12	Economic Output per Job	21
Long-Term Job Growth	13	STEM Job Growth	21
Productivity Growth	13	Educational Attainment	21
Per Capita Income Growth	13	High-Tech Share of All Businesses	22



IDAHO

Idaho, on an annual average basis, had recovered about 70% of its recession job losses in 2013 and the number of workers without jobs dropped below 41,000 for the first time since August 2008. The recovery, however, really did not start until 2010 and has been geographically uneven across the state.

According to the *Idaho Economic Forecast* (January 2014), the state's private education and health sector is the sole major employment sector that did not suffer job losses during the Great Recession. In fact, from 2007 to 2011, this sector added 12,000 jobs. Health care demand is driven more by demographics than economics, and an aging population is a major driver of health care employment. Jobs in the sector were often filled by unemployed or underemployed workers who returned to school to learn new or enhance existing skills to be more competitive in the tight job market. This demand increased the need for teachers, trainers, and administrators in Idaho.

Idaho ranks 10th in the business climate category this year. The state's business climate will be bolstered in the future with the Idaho Tax Reimbursement Incentive Act, which allows businesses to recoup up to 30% of new income, sales, and payroll taxes paid as a result of an expansion. To take advantage of the incentives, urban companies have to create at least 50 new jobs, while rural-based businesses are required to create at least 20.

Idaho's transformation into a technology manufacturing hub during the 1990s stalled during the recession. The state's employment in technology sectors had grown to roughly 10,000 jobs by 1991 and employment continued increasing to almost 20,000 jobs over the next 10 years. Computer and electronics manufacturing employment in Idaho was at an estimated level of 11,318 jobs in 2013, and is expected to remain stable through 2017. The sector did, however, play a major role in generating strong foreign sales, along with prefabricated buildings and some agricultural products, driving Idaho exports to nearly \$5.8 billion, its 3rd-highest annual export total on record.

Idaho's labor force participation rate dropped below 64% in 2013 for the first time in more than 30 years. The declining participation rate likely reflects the increasing

size of Idaho's population 55 and older and the initial wave of baby boomer retirements. It also means that Idaho will face somewhat unique challenges in filling the future talent pipeline.

The Idaho Task Force on Improving Education unanimously adopted the State Board of Education's goal that 60% of Idahoans between the ages of 25 and 34 attain a postsecondary degree or credential by 2020, up from the current 39%. The state is working on increasing high school graduation rates and bolstering efforts to support graduates to pursue postsecondary education.

i-STEM is a coordinated statewide effort by the Idaho State Department of Education, Idaho Professional-Technical Education, educators, businesses, and industry to support STEM education in kindergarten through 12th grade. The Idaho STEM Pipeline is a user-friendly web portal that provides information on various Idaho programs to students, parents, teachers, and Idaho communities.

The Workforce Development Training Fund reimburses employee training costs to eligible companies that are bringing jobs to Idaho, adding jobs through expansion, or upgrading skills of current workers who are at risk of being permanently laid off. Governor Butch Otter is an avid proponent of building partnerships to improve workforce development, including targeted use of grants for training employees not just for individual businesses but for the market-driven growth of industry sectors that add value to Idaho's economy.

Source on pages 33–35

Road Quality	2	Bridge Quality	15
Small Business Lending	3	Short-Term Job Growth	18
Cost of Living	3	Business Tax Climate	18
Gross State Product Growth	5	STEM Job Concentration	19
Productivity Growth	6	College Affordability	20
Kauffman Entrepreneurship Index	6	Export Intensity Growth	24
Long-Term Job Growth	10	Labor Force Utilization	24
Legal Environment	12	Export Intensity	25



ILLINOIS

Employment in Illinois has yet to fully recover from the recession. The state is still down 175,000 jobs since its pre-recession peak in January 2007. However, the state has seen steady growth since January 2010, adding 234,000 new jobs.⁸⁰ According to an analysis by Regional Economics Applications Laboratory at the University of Illinois at Urbana-Champaign, employment growth has occurred in manufacturing, trade, transportation and utilities, financial activities, professional and business services, and leisure and hospitality. Job growth has, nonetheless, been lagging the national pace of employment expansion and likely will continue on that track into

the foreseeable future, according to a JP Morgan Chase Co. forecast.

Illinois has moved up to 3rd in the nation—and the Chicago area is now the number 1 metro market in the country—for new and expanded corporate facilities, by *Site Selection* magazine's annual analysis. Illinois moved up two spots from last year's 5th-place ranking and the Chicago region went from 2nd place last year to 1st place this year.

Part of Illinois' jobs strategy is investing in industries that are the future of a 21st century economy. The health care community in Illinois is the 3rd-largest in the United States, and the life science industry in Illinois has a \$98 billion economic impact. To build on this foundation, Governor Pat Quinn recently announced details about a new facility to support startup companies researching and commercializing next-generation products and services in health care IT, medical devices, diagnostics, and biopharma. MATTER will serve as a central location for empowering entrepreneurs and spurring economic growth while advancing the role of Illinois as a leader in life sciences and health innovation. The nonprofit MATTER is getting started with \$4 million in state funding. This includes a \$2.5 million grant and a \$1.5 million loan provided through the Illinois Department of Commerce and Economic Opportunity as seed funding support.

Illinois ranks 15th in this year's export ranking category. Among the indicators that make up the category, Illinois ranks 6th overall in the change in state share of national exports from 2003 to 2013 and 10th in the change in the value of exports per dollar of gross state product from 2002 to 2012. This is evidence of the growing importance of exports to the state's economy in the past decade.

Illinois's export shipments of merchandise in 2013 totaled \$65.8 billion. The state's largest merchandise export category is machinery, except electrical, which accounted for \$15.0 billion of Illinois's total merchandise exports in

2013. Governor Quinn has set a goal of doubling the state's exports by the end of 2014 by offering increased export services, programs, and training through the Office of Trade and Investment to small and medium-sized businesses, enabling them to grow into markets outside of the United States.

To have the skilled workers required to be competitive in a 21st century economy, the Illinois P-20 Council has established a goal to increase the proportion of Illinoisans with high-quality degrees and credentials from 44% to 60% by the year 2025. Illinois Pathways proposes a new and innovative approach to increasing credential attainment by supporting two strategies:

- + Better support for local schools, postsecondary institutions, and programs to enable learners to explore their academic and career interests in STEM fields; and
- + Improved coordination of public and private investment, including business and industry, in supporting the development of a workforce that can be competitive in tomorrow's economy.

STEM Learning Exchanges have been organized to support local implementation of P-20 STEM Programs of Study. The learning exchanges are organized by career cluster and work to coordinate planning and investment, aggregate resources, and review talent supply-chain performance.

Source on pages 33–35

Broadband Provider Availability	2	H.S. Advanced Placement Scores	13
Adjusted Median Family Income	5	Educational Attainment	14
Bridge Quality	6	Export Intensity	15
Growth in Share of National Exports	6	Higher-Ed Efficiency	16
Export Intensity Growth	10	Labor Force Utilization	16
Broadband Speed Availability	11	Cost of Living	21
High-Tech Share of All Businesses	11	Export Growth	21
Economic Output per Job	13	New Startup Rate	23



INDIANA

Over the past several years, Indiana political, industry, and education leaders identified the need for a strong, middle-skills workforce, as a key to driving future prosperity in the state. The Indiana Skills2Compete coalition, launched in 2010, is a bipartisan initiative focused on “closing Indiana’s skills gap.”⁸¹ Since its creation, the coalition has worked to identify and enact innovation in the state’s workforce training system, notably supporting Governor Mike Pence’s creation of the Indiana Career Council. Made up of public and private sector leaders, the council is tasked with identifying ways to align the state’s workforce training and educational

systems to meet the needs of Indiana business and fill labor market gaps.

Indiana revamped its internship programs, seeking to offer more options to students seeking skills training. The state's new Employment Aid Readiness Network Indiana Program expands existing internship programs to offer state matching funds for interns at for-profit companies throughout the state. In addition to providing valuable learning and networking experiences for qualified students, the program is designed to give private sector employers an inside track on identifying talented Indiana students for potential future employment.

Looking to expand the focus of its workforce training support efforts, Indiana has opened up a variety of its workforce training funds to allow use for retraining of existing employees. Before the 2013 legislative changes, Indiana had limited several programs to new employees. By opening up the funds, the state hopes to improve its job retention efforts, helping keep companies in the state by keeping their existing workforce skills up to date and competitive.

The year 2013 also saw the state launch new Indiana Works Councils. The 11 regional councils, made up of more than 160 education and industry leaders appointed by the governor, will review and develop a "career, technical, or vocational educational curriculum" at high schools throughout the state, to align workforce development efforts with the needs of Indiana business. As part of the new initiative, the state has made more than \$4.3 million in grants available for Innovative Career and Technical Education Curricula development. To ensure that training designed under the grants is tied to industry needs, the program requires private investment in order to receive

state funding. By bringing together industry and educators, the grants are designed to connect students to training that meets real industry needs, providing them with better career pathways while providing business with new, well-trained, talent.

Governor Pence has made Workforce Development and Skills Improvement a key part of his Roadmap for Indiana. In addition to the 2013 reforms adopted by the state, the governor's 2014 Roadmap includes multiple workforce-related proposals, including a return-on-investment assessment of the state's career and technical education programs, creation of a task force on the future of higher education in Indiana, and a new "performance-based" program designed to help underskilled adults access needed skills training. Governor Pence has also called for new efforts to streamline business regulation, create one-stop permitting, and recruit more entrepreneurs to the state. The overall goal is to ensure that the state reduces barriers to entrepreneurship, and maintains the talent pool needed to let businesses grow and flourish.

Source on pages 33–35

Cost of Living	7	Adjusted Median Family Income	20
Higher-Ed Efficiency	7	Bridge Quality	20
Export Intensity	8	Broadband Speed Availability	21
U.S. Business Policy Index	8	Economic Output per Job	23
Business Tax Climate	10	Higher-Ed Degree Output	23
Productivity Growth	12	Short-Term Job Growth	25
Export Intensity Growth	14	Growth in Share of National Exports	25
Broadband Provider Availability	14	Export Growth	25
Legal Environment	15		



IOWA

Since taking office in 2011, Governor Terry Branstad has made reform of Iowa's economic development system one of his key priorities as part of his goal to create 200,000 jobs over five years. These reforms included replacing the preexisting Iowa Department of Economic Development in 2011 with the Iowa Economic Development Authority (IEDA). IEDA represents the public side of the state's Iowa Partnership for Economic Progress, a public-private partnership created to advise and shape the state's economic growth agenda.

The Branstad administration has also made workforce development a central focus, as part of its announced goal to provide Iowa's students with the best schools in the nation. The administration argues that by improving its school system, the state can better support the state's employers, who need Iowa schools to deliver a "better-prepared, better-trained work force."⁸²

Over the past seven years, Iowa has invested more than \$260 million into job training programs. These include the state's Accelerated Career Education program, which works in partnership with the state's system of community and technical colleges to deliver training to Iowa businesses in need of skilled employees. Businesses in targeted qualified industries, including manufacturing and construction, are able to enter into an agreement with a college to sponsor a number of seats in an existing or new training program. In return for state support in funding the training, the business agrees to give hiring preference to students coming out of the program, and to meet certain wage standards. Participating businesses are required to pay a portion of the training costs, but are able to take part in program design and receive tax credits equal to 10% of the hiring wage of workers hired from the training program, easing the cost of training and expansion.

Iowa includes internships as a key part of its workforce training strategy. The Iowa Student Internship Program provides grants to small and medium-sized Iowa companies in high-tech industries to hire paid interns from Iowa colleges and universities and Iowa high school graduates attending college out of state. The goals of the program are to expose young Iowans to opportunities in the state and to connect small technology firms to the home-grown talent they need to expand their business. Since its launch, one out of every six participants in the program has received a job offer as a result of their involvement.

Expanding development in STEM-related fields is another goal of Iowa's economic and workforce development strategies. Governor Branstad's STEM Advisory Council is exploring ways to implement new STEM educational strategies and practices in Iowa's schools, providing grant funding to pilot expanded STEM classroom environments in several school districts throughout the state. The state also launched the Iowa Innovation Corporation, a nonprofit corporation created by IEDA to work with the private sector to support economic development activity while promoting technology and innovation jobs. The corporation manages the Iowa Innovation Fund, a state-launched fund to provide "second stage or later funding" to innovative Iowa-based companies. Managed by investment professionals, the fund was seeded with money attracted by tax credits issued by the state legislature in 2012.

Source on pages 33–35

Productivity Growth	4	Growth in Share of National Exports	12
Per Capita Income Growth	4	STEM Job Growth	12
Legal Environment	5	Cost of Living	12
Higher-Ed Degree Output	5	Academic R&D Intensity	13
Labor Force Utilization	5	Export Intensity	14
Export Intensity Growth	7	College Affordability	14
Adjusted Median Family Income	9	Long-Term Job Growth	20
Export Growth	10	State and Local Tax Burden	22
Educational Attainment	11	Broadband Provider Availability	22
Gross State Product Growth	12	Short-Term Job Growth	23



KANSAS

Governor Sam Brownback has pressed for regulatory reform and streamlining as a way to build a more business-friendly environment in Kansas. Upon taking office, Governor Brownback established a Citizen's Regulatory Review Board tasked with reviewing proposed state rules and regulations and offering feedback about any issues that are noted. By inserting citizens into the process, the board was intended to cut off potentially harmful regulations before they could have a negative impact on business in the state. The governor also created an Office of the Repealer, charged with reviewing existing regulatory codes and recommending rules and regulations

for revision or elimination. The office also accepts recommendations for regulatory repeal from citizens.

Kansas policymakers have also embraced major tax reforms in an effort to build a more business-friendly climate. Beginning in 2013, a new business tax exemption took effect, reducing certain types of taxable business income. The state also reduced the number of corporate tax brackets from three to two, and reduced the rates. The new highest rate is now 4.9%, compared to an old top rate of 6.45%. In 2014, a series of individual income tax cuts are scheduled to begin taking effect, and will be in place until 2018. Finally, the state is now offering taxpayers a larger standard deduction for personal income taxes, reducing their overall tax burden.

Workforce training support in Kansas is provided by several grant programs, each with its own area of specialized focus. The state's Kansas Industrial Retraining program offers matching grants to retrain workers who might otherwise lose their jobs as their companies restructure to stay competitive. The Kansas Industrial Training program gives grants to firms conducting training of new employees as they expand or relocate to Kansas. The state's High Performance Incentive Program, while not solely focused on workforce training, does offer training tax credits to companies that take an active approach to employee skill development. The program also offers tax credits for capital investments, encouraging companies to upgrade equipment to remain competitive.

Kansas also offers job training support for older workers through its Older Kansans Employment Program. Kansans 55 and older are eligible to take part in the program, and are given access to job placement services, training, and mentoring.

Having identified a need for more child care and early childhood education professionals, Kansas created the Early Childhood Associate Apprenticeship Program (ECAAP). ECAAP offers financial support to employers who sponsor an apprentice, helping pay wages and training costs. In addition to taking on part of the costs, the sponsor is responsible for providing a mentor to the apprentice, to help ease the transition into the field. The apprenticeship involves both on-the-job experience and classroom training. Upon completion of the program requirements, participating apprentices receive certification as a Child Development Associate and an Apprenticeship Certificate of Completion.

Known as a rather rural and agricultural state, Kansas strives to ensure that its rural communities are not left behind in its push for broad-based economic growth. The state's Rural Opportunity Zone (ROZ) program is designed to offer incentives encouraging people to live and work in rural Kansas. New Kansas residents moving to a ROZ area are eligible for income tax waivers for up to five years and student loan repayment assistance of up to \$15,000. By offering financial incentives, the program cuts down on the opportunity cost of living in a rural area, potentially balancing the equation when a potential resident is forced to choose between a rural lifestyle and a larger city with higher wage scales.

Source on pages 33–35

Higher-Ed Degree Output	2	Legal Environment	17
Higher-Ed Efficiency	5	Educational Attainment	18
College Affordability	6	Growth in Share of National Exports	19
Productivity Growth	7	Gross State Product Growth	20
Adjusted Median Family Income	11	High-Tech Share of All Businesses	20
Cost of Living	11	Business Tax Climate	20
Bridge Quality	11	Export Intensity	21
Labor Force Utilization	12	State and Local Tax Burden	23
Road Quality	14	U.S. Business Policy Index	23
Per Capita Income Growth	15	Long-Term Job Growth	24
Export Growth	17		



KENTUCKY

In an attempt to better tie its workforce development and educational programming to solid data, commonwealth leaders recently established the **Kentucky Center for Education and Workforce Statistics**. The new center will gather longitudinal data on student performance in school and as they enter the workforce in order to guide state program development and improvement. In addition to ensuring that state programs are tied to the needs of industry throughout the commonwealth, and supporting a solid path to careers for students, the new office is designed to measure the overall return on investment of state programs focused on education

and skills development.⁸³

Kentucky's Cabinet for Economic Development and its Bluegrass State Skills Corporation (BSSC) offer businesses in the commonwealth a variety of resources designed to help them and their employees obtain the skills they need to compete and succeed. The initiative's grant-in-aid program provides qualified businesses with reimbursement of up to 50% of the cost of training for new and existing full-time employees. Projects involving industry consortia are eligible, provided they are industry driven and are built around public-private-educational partnerships. BSSC also provides business with access to tax credits for eligible training activities. BSSC also serves as an intermediary, working with various stakeholders throughout the commonwealth to build public-private partnerships and connect industry to available resources.

Kentucky's Work Ready Communities program offers Kentucky communities the opportunity to be certified as "Work Ready" by meeting criteria in areas "including high school graduation rate, National Career Readiness Certificate holders, demonstrated community commitment, educational attainment, soft-skills development and digital literacy."⁸⁴ Billed as the "most rigorous certification program in the nation," Work Ready offers communities the opportunity to demonstrate their workforce quality to potential employers seeking new locations to launch or expand. Certifications last for two years before they must be renewed, ensuring that workforce quality standards have been maintained. In addition to providing goals for local workforce development efforts to meet, the program offers employers exploring locating in Kentucky a list of areas that provide the high-quality workforce they need to succeed.

Governor Steve Beshear has also pressed for continued workforce skills development innovation, including the 2014 launch of a new Skills Initiative modeled after a German apprenticeship program. This "dual system" allows students to pursue a high school education while concurrently working as an apprentice to gain valuable

work skills. The new model will make use of Kentucky's existing workforce development resources to build an industry-driven training program that is built around "equal parts education and work." The new program plans to take advantage of the commonwealth's position as home to a variety of German-owned companies and strong economic ties to Germany to help the initiative take root. Through the program's special focus on manufacturing, Kentucky hopes to build on the more than 150 companies already offering some version of dual-track training throughout the commonwealth.

Kentucky also maintains an Education and Workforce Development Cabinet, made up of 11 agencies throughout state government focused on education- and skills-related policy and programming issues. The cabinet's member agencies are tasked with working together to provide lifelong learning and skills development opportunities for residents of the commonwealth.

Source on pages 33–35

Cost of Living	4	Export Growth	15
Kauffman Entrepreneurship Index	6	Adjusted Median Family Income	24
Export Intensity	7	Higher-Ed Efficiency	24
Road Quality	11	Higher-Ed Degree Output	25
Growth in Share of National Exports	13	H.S. Advanced Placement Scores	25



LOUISIANA

With one of the nation's top export economies, a strong energy sector, and cities recovering from the past decade's natural disasters, Louisiana appears to be making solid forward economic progress. However, this progress and recovery have brought on workforce challenges. By the beginning of 2014, business in the state faced nearly 75,000 unfilled job openings, alongside estimates that it would need to find talent to fill more than 80,000 jobs in the skilled crafts by 2016.⁸⁵

Acknowledging the challenge this could pose to future economic growth, Louisiana's business and political leaders have begun to explore new options to fill the emerging skills gap in the state. Private industry leaders, working through the Louisiana Association of Business and Industry, have called attention to the challenge. Private sector leaders are committing to increase their efforts to support small businesses, help veterans transition back to the workforce, increase the number of women in business and the workforce, and work to develop training programs to help prisoners return to the workforce post-incarceration.

State government has stepped up its efforts to build an efficient, effective workforce system. As part of Governor Bobby Jindal's workforce agenda, the state has embraced reforms to make the system more industry friendly, bringing private business to the table to ensure that program offerings are providing the workforce they need to grow and thrive. This has included creating a Workforce Commission to replace the preexisting Department of Labor, and a Workforce Investment Council, made up of members from business, labor, local governments, and state officials. The state has also reformed Workforce Investment Boards, appointing businesspeople to leadership positions, including small business owners.

Recognizing the need to support small businesses dealing with workforce challenges, Louisiana operates a Small Business Employee Training Program as part of its Incumbent Worker Training Program. Employers can receive up to \$3,000 to defray the costs of off-the-shelf training programs for an existing employee. Eligible training can include classes offered at Louisiana colleges, training provided by equipment manufacturers as part of a plant upgrade, or trade association—related training programs.

Seeking to support businesses that have shown strong performance in workforce development, Louisiana's Workforce Commission created a Workforce Partners initiative. The program recognizes businesses that have committed to building a "job ready" workforce in the state

through support and training. Recognized businesses have access to additional training opportunities, online resources, and free online job postings, among other resources.

Louisiana recently implemented the Strategies to Empower People (STEP) program, a reform of the state's work requirements for the Temporary Assistance for Needy Families assistance program. STEP helps those receiving government assistance access job training, job readiness support, vocational education programs, and a variety of other services designed to help people build skills and join the workforce. Participants can receive assistance with child care, transportation, and training equipment costs to ease the transition. By helping the unemployed improve their skills, the state hopes to help more families become self-sufficient, while also tapping another pool of labor to help support economic growth.

Source on pages 33–35

Export Intensity	1	College Affordability	10
Export Growth	1	Kauffman Entrepreneurship Index	12
Per Capita Income Growth	2	Economic Output per Job	15
Export Intensity Growth	2	New Startup Rate	17
Growth in Share of National Exports	2	Cost of Living	19
State and Local Tax Burden	5	U.S. Business Policy Index	21
Higher-Ed Efficiency	6		



MAINE

Since taking office, Governor Paul LePage has advocated for reforms to the state's workforce development system, arguing in favor of focusing a greater share of its resources directly into training while reorganizing the state's local workforce regions. Governor LePage has stated that Maine needs "to do more to ensure that career and technical education is seen as a valid, mainstream path,"⁸⁶ and has directed funding to help the state's Career and Technical Education Centers establish "bridge year" programs, giving students access to college credit for coursework performed as part of technical-skills education. In addition to advocating for workforce development

reforms, the Lepage administration made regulatory reform and streamlining a key agenda item to support business, hosting Red Tape Workshops throughout the state to gather input on potential reforms from business leaders.

The Finance Authority of Maine (FAME) offers businesses of all sizes and stages a variety of financing tools to give them access to the capital they need to grow and create jobs. Launched in 1983, FAME is run by a governor-appointed board including leaders from business, banking, law, education, and government. The authority offers more than 20 finance programs, including direct lending programs, equity and venture capital, and bond financing. FAME also administers the state's Seed Capital Tax Credit Program, which provides income tax credits worth up to 50% of the equity investment made in a qualified Maine company, encouraging support of innovative new startups in manufacturing, advanced technologies, and other target industries. The authority also works with Maine lenders, offering loan insurance options and buying down interest rates on loans to qualified Maine businesses to provide support for expanded private sector investment throughout the state.

Maine's International Trade Center, working with a group of schools, colleges, and universities across the state, operates the StudyMaine initiative. StudyMaine is focused on promoting opportunities for foreign students to access educational opportunities in Maine, bringing new, talented individuals to the state, and potentially enhancing Maine's workforce. Member universities have also taken part in trade missions to Latin America, hoping to attract new students to the state and promoting the research and development capabilities of the higher education system. Faced with projections showing a stable or declining college-aged population in the state, Maine is looking to tap into international talent to help maintain a robust talent pipeline.⁸⁷

Maine's business leaders have also made calls to increase the state's focus on attracting new talent to the state, with the Maine State Chamber of Commerce and the Maine Development Foundation releasing their "Making Maine Work" plan in 2013, with a goal of adding 65,000 workers to the state's talent pool by 2020. The plan calls for

increased marketing, an expanded commitment to private-public coordination in setting workforce goals, bringing more disengaged individuals back to the workforce, and embracing best practices for resettling refugees into the state's communities and workforce. Maine's Chamber of Commerce has also committed to help bridge the gap between higher education and business through its InternHelpME.com program. The program, launched following consultation with state leaders, connects college students to internships with Maine companies, creating a one-stop shop for internships in the state.

Source on pages 33–35



Legal Environment	3	Higher-Ed Efficiency	15
H.S. Advanced Placement Scores	11	Labor Force Utilization	16
Broadband Provider Availability	11	Small Business Lending	19
Kauffman Entrepreneurship Index	13	High-Tech Share of All Businesses	23



MARYLAND

Maryland leads the pack in the *Enterprising States Technology and Entrepreneurship* category, ranking 1st for the 3rd year in a row. Further breakdown of this indicator reveals that Maryland ranks 1st in STEM job concentration, 1st in academic research and development, 3rd in high-tech business concentration, and 9th in 10-year STEM job growth.

Looking to double down on this momentum, the Maryland legislature has passed a budget that increases last year's science and technology funding and includes \$12 million to continue the successful Biotech Tax Credit program, \$9 million for the R&D Tax Credit, and \$4 million for the Cyber Tax Credit. The Biotech Tax Credit allows investors who invest in seed-stage biotechnology companies to take up to a 50% investment tax credit. These changes by the 2014 legislature represent increases in funding for all three of these tech-friendly programs.

The cybersecurity sector is a key target industry for Maryland, as demonstrated by the continuation of the Cybersecurity Investment Incentive Tax Credit referenced above and by local, state, and federal public-private partnership efforts. Investors who invest a minimum of \$25,000 in Qualified Maryland Cybersecurity Companies can receive up to a 33% refundable tax credit with a maximum of \$250,000 in a year.

The 2014 legislature also created a Cybersecurity Investment Fund for seed-stage Maryland cybersecurity companies, modeled after the state's Technology Commercialization Fund. Local entities, such as Montgomery County, are stepping up to augment these incentives and federal investments to support startups and attract cybersecurity firms, as evidenced by a \$4.5 million local investment in the National Cybersecurity Center of Excellence in Rockville.

High-tech-related business is a strength for the state, ranking 3rd for its share of high-tech business establishments, such as computer systems design and programming, engineering firms, and high-tech manufacturing. In 2013, 7.6% of Maryland's business establishments were in high-tech sectors; nationally, that share is 4.5%.

The talent pipeline remains strong in Maryland—ranking 3rd in this year's report—and contributes to the strong concentration of high-tech businesses. The state ranks 9th in educational attainment and 11th for college affordability. Talent production is another strength, ranking 13th in total degrees awarded for the size of the state.

In 2012, 23,482 Maryland graduates earned degrees or certifications in a STEM-related field. This talent supply helps balance the demand created by the state's high-tech economy. There are 217,000 STEM workers in the state, accounting for 7.7% of the total workforce, the highest concentration of STEM workers in the nation.⁸⁸ The success of the talent pipeline can be traced back to high school and earlier. Nearly 30% of Maryland high school seniors scored at least a 3 on an Advanced Placement exam in 2013, the highest share in the nation.

Maryland has established several public-private collaborative projects to ensure continued success of the state's STEM economy and education system, including the governor's STEM Task Force, the Maryland Business Roundtable for Education, We Work for Health, and Junior Achievement. In the past five years, the biotech industry alone invested more than \$100 million and 27,000 volunteer hours in STEM education. These efforts reach 500,000 students and 8,000 teachers every year.⁸⁹

Source on pages 33–35



STEM Job Concentration	1	Economic Output per Job	12
Academic R&D Intensity	1	New Startup Rate	13
H.S. Advanced Placement Scores	1	Higher-Ed Degree Output	13
Adjusted Median Family Income	2	Broadband Speed Availability	13
High-Tech Share of All Businesses	3	Gross State Product Growth	14
Productivity Growth	9	Labor Force Utilization	14
STEM Job Growth	9	Per Capita Income Growth	23
Educational Attainment	9	Broadband Provider Availability	23
College Affordability	11		



MASSACHUSETTS

Massachusetts ranks 9th among all the states in economic performance, 6th in the technology and entrepreneurship category, and 11th in talent pipeline. Nearly 40% of the jobs in Massachusetts are in the innovation economy, more than any other state, according to a study by the Innovation Institute at the Massachusetts Technology Collaborative.

The manufacturing sector employs 8% of the state's workforce and is concentrated in the production of computers and electronic products, fabricated metal products,

food processing, and machinery. The manufacturing workforce is highly educated, with almost 39% of the state's manufacturing workforce holding a bachelor's degree or higher in 2010, versus 26% for the United States as a whole. According to the New England Economic Partnership, there will be as many as 95,000 to 100,000 job vacancies in the state's manufacturing sector over the next 10 years, due mainly to retirements of existing workers.

To maintain the state's competitive advantages in innovation and build a 21st century workforce, the legislature passed a new law titled "An Act Relative to Infrastructure Investment, Enhanced Competitiveness and Economic Growth in the Commonwealth."⁹⁰ It includes a number of initiatives supporting key growth sectors, including \$50 million for a Scientific and Technology Research and Development Matching Fund. The fund will support collaborative research and development projects among businesses and universities, building off the example of the Massachusetts Green High Performance Computing Center in Holyoke.

In the area of workforce training and education, the legislation includes \$5 million for the Workforce Competitiveness Trust Fund, which prepares Massachusetts residents for new jobs in high-demand occupations and which helps to close the middle-skills gap and create seamless pathways to employment.

The Commonwealth of Massachusetts has also joined with MassTech Collaborative to create the MassTech Intern Partnership to connect talented college students and recent college graduates to internships in the state's dynamic technology sector.

Massachusetts is recognized as a national leader in STEM education as a result of strategic investments in programs and initiatives aimed at developing a highly skilled

workforce, fostering economic development and positioning the Commonwealth as a leader in the 21st century innovation-based global economy. In 2009, Governor Deval Patrick created the Governor's STEM Advisory Council. To build on its success, an updated STEM Plan in 2013, known as "Expanding the Pipeline for All: Massachusetts' Plan for Excellence in STEM Education," will support goals in five areas:

1. Increase student interest in STEM areas;
2. Increase student achievement among all pre-K–12 students to prepare graduates to be civically and college and/or career ready;
3. Increase the percentage of skilled educators who teach pre-K–16 STEM classes;
4. Increase the percent of students completing postsecondary degrees or certificates in STEM subjects; and
5. Align STEM degrees and certificate attainment with corresponding opportunity in STEM-related fields to match the state's workforce needs for a STEM talent pipeline.

The Workforce Solutions Group is a coalition led by the Massachusetts Workforce Board Association, Massachusetts AFL-CIO, Crittenton Women's Union, Mass Business Roundtable, Mass Communities Action Network, Center for Labor Market Studies, and the Massachusetts Workforce Professionals Association. This broad coalition is dedicated to improving and reforming the Massachusetts workforce development system to support both workers and employers with the skills they need to maintain well-paying jobs and a vibrant economy.

Source on pages 33–35

Educational Attainment	1	STEM Job Growth	15
Academic R&D Intensity	2	Broadband Provider Availability	15
STEM Job Concentration	4	Per Capita Income Growth	18
H.S. Advanced Placement Scores	4	Productivity Growth	20
Broadband Speed Availability	5	Short-Term Job Growth	21
Adjusted Median Family Income	6	Labor Force Utilization	21
High-Tech Share of All Businesses	6	Long-Term Job Growth	22
Economic Output per Job	9	New Startup Rate	25
Higher-Ed Efficiency	13	Business Tax Climate	25



MICHIGAN

The Michigan economy is entering its 5th year of recovery, adding 69,700 net jobs during 2012 and 68,100 during 2013 according to the Research Seminar in Quantitative Economics at the University of Michigan. Four years out from its low point, the state's auto industry now sells as many vehicles each year as it did before the crash. Michigan's unemployment rate has dropped from a high of 14.2% in August 2009 to just a little shy of 8% today. The two-year outlook is for steady job creation in trade, transportation, and utilities; professional and business services; and construction.

Michigan ranks 9th in the export category in this year's ranking. Michigan is a global manufacturing leader. Nearly 14,000 manufacturing establishments in the state produce everything from cars and trucks to medical devices and furniture. The manufacturing sector accounts for nearly 14% of the state's total nonfarm employment.

Michigan's export shipments of merchandise in 2013 totaled \$58.5 billion. The state's largest merchandise export category is transportation equipment, which accounted for \$28.9 billion of Michigan's total merchandise exports in 2013. Other top merchandise exports are machinery, except electrical (\$5.1 billion), chemicals (\$4.5 billion), computer and electronic products (\$3.1 billion), and primary metal manufactures (\$2.5 billion).

Michigan has about 60,000 unfilled jobs, and the highest-demand careers are in health care, technology, manufacturing, hospitality, and retail. Looking to the future, Michigan is focusing on preparing high school students for these high-demand careers. Career Jump Start, a program funded by the Michigan Economic Development Corp., will introduce career liaisons in each of Michigan's 10 "Prosperity Regions" who will support ways to connect employers, educators, and students, building Michigan's workforce together. The program will use real-time job demand and industry data to inform the process. Career Jump Start collaborates with 25 regional Michigan Works! agencies that focus on the needs of job makers and developing talent for the 21st century economy.

The Regional Prosperity Initiative empowers local governments within a region to better determine and affect the factors that drive economic prosperity. Formal regional collaboration also improves shared service delivery and technical assistance for local communities from their regions. A strong regional strategy for economic prosperity will enable local partners to compete in an increasingly global economy. Strong regions will give the state a new

avenue by which to deliver state services that are more efficient and responsive to the needs of the regional economy.

The Michigan STEM Partnership is a statewide, public-private collaborative that includes educators, employers, legislators, and any others who are concerned about creating the new economy and addressing the current lack of STEM skills in schoolchildren and job applicants. The partnership offers statewide competitive grants to foster a culture of cross-disciplinary education (P-20) in which all subjects are seen to be connected to each other and related to real-world activities. The partnership supports rigorous academic curricula such as the Common Core Curriculum Standards and the Next Generation Science Standards while at the same time supporting new approaches to teaching those curricula using methods such as project-based learning to promote student engagement in learning, and the development of problem-solving, communication, and teamwork skills.

Governor Rick Snyder is requesting \$150 million in bond funds for job-creation infrastructure in the fiscal year 2015 budget. The bond funding will enable colleges and universities to compete for funds to improve their talent programs, including increasing the number of engineering graduates and allowing community colleges to retool equipment for high-skills occupations based on employer demand within their region.

Source on pages 33–35



Export Intensity	6	Broadband Speed Availability	19
Academic R&D Intensity	6	Short-Term Job Growth	20
Higher-Ed Degree Output	7	Adjusted Median Family Income	21
STEM Job Concentration	8	Road Quality	21
U.S. Business Policy Index	11	H.S. Advanced Placement Scores	22
Business Tax Climate	14	High-Tech Share of All Businesses	24
Broadband Provider Availability	16	Small Business Lending	24
Cost of Living	18		



MINNESOTA

Ranked 2nd for its talent pipeline in this year's report, Minnesota is strengthening workforce skills and economic growth by bringing multiple stakeholders to the table to work in partnership. The state's Governor's Workforce Development Council (GWDC) brings together leaders from the private, public, and education sectors, along with community leaders, to recommend ways to better align the state's workforce skill development with real-world needs. Over the past two years, the GWDC rolled out a Skills@Work campaign, designed to identify challenges, build teams, and share successful strategies. Regional action teams were organized to

identify the two most pressing workforce challenges in their area of the state and develop strategies to deal with them. Regional and industry action teams also identified a group of “promising practices” to share with workforce stakeholders throughout the state, to help build a more unified and effective approach to dealing with the state’s skills gap.

The Minnesota Job Skills Partnership, part of the state’s Department of Employment and Economic Development (DEED), has also been tasked with leading state efforts to build a more globally competitive workforce. The initiative provides training grants of up to \$400,000 to educational institutions throughout the state to build workforce skills training partnerships with private industry. Projects can last from one to three years, and involve training for both new and existing employees. Participating businesses are required to provide matching funding, creating an equal private-public partnership in support of the training. The Job Skills Partnership also provides predevelopment seed grants to prospective partnerships, allowing potential groups to explore the feasibility of following through with creation and implementation of a larger-scale workforce development effort.

DEED also supports the state’s Minnesota FastTRAC program, offering a variety of adult career-pathway training throughout the state. The program is focused on building skills, bringing together basic skills education, career training, and access to postsecondary credential programs. The program is backed by a partnership of nonprofit foundations, colleges and universities, and state government agencies, bringing multiple resources to bear to enhance the state’s workforce training options.

Seeking to support hands-on training for college students, connect small and medium-sized technology companies to high-quality talent, and keep more Minnesota-educated STEM students in the state, Minnesota started the SciTechsperience internship program. Created in 2011, and given upgraded funding by the state in 2013, SciTechsperience is backed by a partnership of more than 350 private and public sector members allied in the Minnesota High Tech Association. The program connects qualified students from Minnesota colleges and universities to paid internships with technology companies. Participating companies from target industries receive a matching grant to cover half of the intern’s wages, up to \$2,500. The program works to connect companies to students who fit their specific needs, in the hope that the internship will be the first step toward future employment, building the growth capacity of the state’s small tech companies by seeding them with new talent and fresh ideas.

Minnesota has also created a Greater Minnesota Internship Tax Credit tailored to regions of the state outside the metropolitan areas. Under the program, businesses outside of the Twin Cities—Minneapolis and St. Paul—can access a refundable tax credit of up to \$2,000 for each intern hired, offering companies support for paid internships, which may help attract more qualified applicants. The state is using the internship credit to help spread talent throughout the state, while improving student access to experiential learning opportunities at emerging businesses.

Source on pages 33–35

Bridge Quality	1	H.S. Advanced Placement Scores	17
Educational Attainment	2	Higher-Ed Degree Output	19
Adjusted Median Family Income	3	Broadband Provider Availability	19
Labor Force Utilization	3	Economic Output per Job	20
Higher-Ed Efficiency	4	Broadband Speed Availability	22
Small Business Lending	10	Long-Term Job Growth	23
STEM Job Concentration	11	Road Quality	23
Legal Environment	13	Export Intensity	24
Productivity Growth	15	STEM Job Growth	24
High-Tech Share of All Businesses	15	College Affordability	25
Short-Term Job Growth	16		



MISSISSIPPI

The Mississippi workforce development system is built around the “one-stop” concept, offering a system of more than 60 training and employment centers around the state as part of its Workforce Investment Network. Employers and job seekers can access services at these centers, including training, job postings, on-the-job training programs, employment screening services, and job placement assistance.

The state's network of 15 community and junior colleges plays a key role in attempting to address skills gap issues, offering training and project support tailored to business needs. The state's Mississippi Development Authority (MDA) also maintains a team of workforce specialists who work with colleges, businesses, workforce development professionals, and other stakeholders to identify resources useful to a particular business, and builds partnerships to pursue needed training services. Mississippi also makes use of a network of career and technology centers to offer vocational education to high school students during the day, and adult skills education classes at night.

Several community colleges and universities in the state offer specialized training programs designed to meet the needs of specific industries. These include the Center for Manufacturing Technology Excellence, offering skills training in a variety of production fields, the Itawamba Community College Manufacturing Solutions Center, and the Mississippi Corridor Consortium Existing Industry Training Program, an initiative offered in partnership with several community colleges focused on providing training to existing employees of Mississippi businesses. The University of Mississippi maintains a Professional and Workforce Development program, offering online enrichment courses, certification programs, and outreach services, bringing tailored training programs directly to the employer.

In 2011, Mississippi launched a new Blueprint Mississippi planning process. The one-year, business-sponsored initiative identified nine "mileposts" for progress. Among these were strengthening and expanding the state's economy and cultivation of a more robust workforce. Input was gathered from more than 2,500 business and community leaders during the year-long process. The final report, issued in 2012, measured the progress made since the previous Blueprint planning process in 2004, and compared Mississippi's data to 11 peer states throughout

the southeast. The workforce recommendations included increasing the focus on STEM career pathways, and bringing more stakeholders to the table to ensure that all voices were heard when setting development policy.

Mississippi's economic development efforts offer a large number of enterprise-friendly tax incentives designed to reduce the cost of doing business in the state. These include free port property tax exemptions on manufactured materials, broadband technology tax credits designed to spur increased installation of Internet infrastructure, credits for creating jobs in economically disadvantaged counties, sales and use tax exemptions for construction and expansion, and data center tax incentives. The state also offers a skills training income tax credit, providing tax relief for businesses that invest in training programs for their employees. The state identified health care jobs as an area of great potential, launching a Health Care Industry Zone Incentive program offering sales tax exemptions and depreciation deductions to large-scale health care developments in the state.

Entrepreneurship is another focus of Mississippi's growth strategy. The MDA maintains an Entrepreneur Center that provides support services free of charge to small business owners in the state. Services include planning support, financing, marketing assistance, retail support, and educational opportunities.

Source on pages 33–35

Cost of Living	1	U.S. Business Policy Index	16
Export Growth	2	Business Tax Climate	17
Export Intensity Growth	3	Academic R&D Intensity	18
Growth in Share of National Exports	5	Kauffman Entrepreneurship Index	18
Higher-Ed Degree Output	6	Bridge Quality	18
Export Intensity	10	Small Business Lending	20
State and Local Tax Burden	11	College Affordability	24
Per Capita Income Growth	12		



MISSOURI

The year 2013 saw the passage of new legislation designed to further modernize and improve Missouri's workforce training infrastructure. Enacted as part of Governor Jay Nixon's economic development agenda, the new Missouri Works Training Program provides funding to qualified companies in target industries to work with the state's workforce development system to train new and existing employees. The program delivers training through a system of Local Educational Agencies (LEAs) made up of community colleges and technical schools throughout the state. LEAs work with companies participating in Missouri Works to tailor

training to their needs, helping ensure that participating businesses will have a workforce with the skills they need to succeed. Participating businesses can also receive funding for training provided by company employees or third-party vendors, with program flexibility designed to meet the needs of the business.

Missouri Works legislation adopted in 2013 also streamlined government business incentive offerings, rolling four existing incentive programs into one, offering entrepreneurs a clearer point of access to seek support to grow their businesses. The state's workforce training program was also streamlined, consolidating multiple programs and initiatives under one banner. By merging programs, Governor Nixon and state leaders hope to cut down on red tape and make government programming for businesses more accessible and enterprise friendly.

The overhaul of Missouri's workforce programming came on the heels of Governor Nixon's Strategic Initiative for Economic Growth. Launched in 2010, the initiative brought together more than 600 stakeholders from business, education, and labor to develop a new economic growth strategy for the state. Released in 2011, the new plan made workforce education and skill development its number 1 strategic objective for economic progress in Missouri. Among its many recommendations, the plan called for streamlining the state's workforce development programming, a proposal implemented by Missouri Works. As part of the effort, the initiative also identified several target clusters containing multiple "niche" industries for increased focus. These niches were selected for representing high-value opportunity in areas of competitive strength for the state.

WorkReadyMissouri helps connect unemployed workers in need of skills training with Missouri businesses in need of potential employees. Participating businesses are able to access a pool of prescreened applicants, who get up to six weeks of on-the-job training at no cost to the business. At

the end of the training period, businesses then have access to a pretrained, ready-to-hire potential employee, helping the company find the talent it needs to grow, and the trainee find new skills and employment. In addition to WorkReady, the state also offers wage reimbursement for on-the-job training for qualified new hires, helping employers in target industries take on new employees and get them up to speed.

Missouri also offers disadvantaged young people in the state access to on-the-job training through its Youth Employment Program. Individuals age 14–21 can access internships, job shadowing, paid positions, and skills assessments and training designed to help them better prepare to join the workforce. Participating businesses are connected to qualified young people seeking experience, while also receiving support services from the state to help improve the experience for the employer and the trainee.

Source on pages 33–35

Road Quality	7	Academic R&D Intensity	21
Business Tax Climate	16	Adjusted Median Family Income	22
Cost of Living	16	Higher-Ed Efficiency	22
Kauffman Entrepreneurship Index	17	Labor Force Utilization	22
New Startup Rate	18	STEM Job Concentration	25
State and Local Tax Burden	18		



MONTANA

Launched in 2013 by incoming Governor Steve Bullock, the Main Street Montana project was a business-led effort to create a “business plan for Montana, by Montanans.” The project was built around a series of roundtable discussions, community meetings, surveys, and individual meetings with business and community leaders, to gather information to inform and develop the final business plan. The final report identified several “key themes” for spurring economic growth in Montana, including workforce training and education, embracing innovation, supporting key industries, building a business-friendly culture with industry input,

and marketing the state and its products. Each theme identified several goals, with related objectives, tasks, and implementation leaders.

In workforce development, the Main Street Montana project identified several key goals. These include finding ways to better align the state's education system with the needs of the economy, engaging public-private partnerships to provide job training and other skills development activities, and providing lifelong learning opportunities for Montana residents. As part of these efforts, the state hopes to reemphasize the importance of community colleges as centers of workforce improvement, integrate workforce skills training into the K–12 system, and increase the use of apprenticeships and on-the-job training programs to meet the state's workforce needs.

Montana provides grant support to primary sector companies in need of workforce training for new hires through its Primary Sector Workforce Training Grant program. To qualify, a company must make 50% of its sales outside of the state and meet industry and wage qualifications. Grants of up to \$5,000 are available for new full-time positions, and \$2,500 for part-time jobs, and can be used to ease the cost of hiring and training employees. Businesses are required to provide at least one dollar of matching funds for every three dollars of grant money they receive. Montana also offers training support to other classifications of business through its Incumbent Worker Training program. This competitive grant program offers small businesses up to \$2,000 per full-time employee to fund skills-based training or training that leads to a certification or accreditation for the trainee.

Home to spectacular mountain scenery, national parks, and a multitude of recreational activities, Montana has made increasing the competitiveness of its tourism industry an important part of its economic development activities. This includes a focus on training hospitality professionals to ensure a positive experience for visitors to “Big Sky” country. The state's Montana Superhost program offers training solutions tailored to the hospitality industry, including webinars, online training materials, and community seminars designed to improve the overall guest experience. Businesses in Montana can become certified as Superhosts by having half their workers complete training, and communities can receive certification by creating a plan for ongoing training of hospitality industry workers.

Montana has also embraced branding of products made in the state under the “Made in Montana” logo, providing marketing support and product identification to companies throughout the state. Companies participating in the program have access to trade shows, free online listings of their products, marketing information, and business development and educational opportunities.

Source on pages 33–35

Kauffman Entrepreneurship Index	1	Academic R&D Intensity	12
Export Growth	3	College Affordability	12
Export Intensity Growth	5	STEM Job Growth	13
Long-Term Job Growth	6	State and Local Tax Burden	13
Per Capita Income Growth	6	Short-Term Job Growth	17
Business Tax Climate	7	Higher-Ed Degree Output	17
Small Business Lending	9	New Startup Rate	20
Road Quality	9	Growth in Share of National Exports	22
Bridge Quality	10	Higher-Ed Efficiency	23
Gross State Product Growth	11	Educational Attainment	23
Productivity Growth	11	Labor Force Utilization	23



NEBRASKA

Nebraska's annual average unemployment rate has been among the lowest in the nation for several years, including 2013, when the seasonally adjusted rate was only 3.6%. The Nebraska economy is expected to grow steadily in 2014, with the pace of growth accelerating later in the year, according to the Bureau of Business Research at the University of Nebraska-Lincoln. Similarly, a Creighton University business survey indicates that Nebraska's growth will quicken in manufacturing of nondurable goods and food processing, thereby building on Nebraska's 11th place ranking for economic performance in this year's report.

The Nebraska Advantage Act, launched in 2006, is an incentive package created to ensure that Nebraska stays highly competitive among today's global, technology-driven free market economy. Since its beginning, the program has handled more than 450 applications representing nearly \$10.9 billion in investment and more than 28,000 jobs with companies applying for one of six tiers that best meets their specific needs. Changes made to the Nebraska Advantage Act in 2013 enable companies with qualifying projects to receive partial or full refunds of sales taxes based on their level of investment, source of capital investment, and level of Nebraska residents' company ownership in the project.

The state's Talent and Innovation Initiative is a multipart plan designed to accelerate Nebraska's economic momentum. The Business Innovation Act (BIA) provides funding to help businesses develop new technologies that lead to quality job opportunities across the state. Competitive grants provide funding and technical assistance for research at Nebraska institutions as well as new product development and testing, and help expand small business and entrepreneur outreach efforts. Recently extended for five years, the BIA will create a fund to study best practices and research other methods to support and increase venture capital in Nebraska.

The Intern Nebraska program connects college students and employers from across the state, providing an opportunity for them to co-invest in the future. Interns gain valuable business experience that will help them in future careers, while successful internships help businesses develop tomorrow's leaders.

The Nebraska Community Learning Center Network is a statewide public-private partnership that supports sustainable, high-quality, school-community collaborations

that provide youth with what they need to be successful in school and in life. These collaborations provide kids access to areas of learning they may never otherwise experience, including hands-on STEM activities. The Out of School Time (OST) Network works with middle school students to raise the interest of Nebraska students in enrolling and excelling in STEM coursework and pursuing STEM careers. OST augments the regular school day to provide the kinds of hands-on, engaging, and inspiring activities that enable young people to fully grasp these complex topics.

Nebraska's 22nd-place ranking in this year's export category reflects the fact that the state's exports were basically flat from 2012 to 2013. This, however, doesn't depict the mixed situation that the state experienced with significant fluctuations on both the positive and negative sides of the equation. Exports of swine, both frozen and fresh, declined by \$94 million; corn exports dropped by \$144 million; and soybean exports fell by \$213 million. On the other hand, animal feed exports increased by \$127 million and natural gas exports rose by \$159 million. As the number one beef producer in the nation, Nebraska has seen demand from around the world steadily increase. In 2013, beef exports totaled \$912 million, an increase of \$98 million from 2012. The U.S. Department of Agriculture estimates that for every \$1 in international exports, \$1.34 is generated in economic activity and new jobs for things such as warehousing and transportation.

Source on pages 33–35

Labor Force Utilization	1	Educational Attainment	13
Legal Environment	2	Long-Term Job Growth	15
Cost of Living	2	Export Intensity Growth	16
Productivity Growth	3	Growth in Share of National Exports	16
Gross State Product Growth	7	Per Capita Income Growth	17
College Affordability	7	STEM Job Growth	19
Adjusted Median Family Income	8	Academic R&D Intensity	20
Export Growth	8	State and Local Tax Burden	23
Higher-Ed Degree Output	9	Broadband Provider Availability	24
Road Quality	10		



NEVADA

Looking to encourage more high school students to seek on-the-job skills training, Nevada lawmakers launched a new program in 2013 that offers high school credits to students who take part in internship programs. Under the new initiative, students who complete 60 hours in a qualified internship are eligible to receive one credit toward fulfillment of their high school graduation requirements. Although there is room for broader industry participation, the program requires that specific industries such as manufacturing, health sciences, and agricultural trades be included. Participating schools are expected to work with local businesses and

other organizations to keep a database of opportunities for placement, giving students support in identifying openings that will fit their educational and career pathway.

The Dream It Do It Nevada initiative, launched in 2011, brings together the “big five” workforce stakeholders—industry, education, economic development, workforce development, and political leaders—to identify industries in need of skilled workers, increase educational completion rates, and diversify the state’s economy. To achieve these goals, the program has worked to identify the “islands of excellence” in the state’s workforce development system and establish solid career pathways for the state’s growing industries. As part of the career pathways focus, Dream It Do It Nevada started a “Right Skills Now” pilot program, modeled after programming developed by the Manufacturing Institute. Right Skills Now offers individuals interested in manufacturing careers a fast track to national industry certifications. The 16-week program prepares participants to transition to jobs in manufacturing, meeting immediate industry needs for skilled workers.

Nevada was one of six states selected as a test site for the next generation of unmanned aerial systems (UAS) in early 2014. As a result, the state’s workforce stakeholders are stepping up their efforts to ensure that UAS-industry companies seeking to do business in Nevada have access to workers with the skill sets companies need to succeed. The University of Nevada-Las Vegas is launching a new program designed to prepare students for jobs in the emerging UAS industry, including offering multiple courses in UAS-related fields, including engineering, computer sciences, and pilot training.⁹¹ The new offerings, including a course of study in UAS issues, will involve private industry partnerships and

support from key partners, including the Governor’s Office of Economic Development.

While Nevada has seen economic growth over the past several years, state leaders are still grappling with high levels of unemployment. Addressing the mismatch between industry demands and worker skill sets is one way to go about putting people back to work, and finding ways to support economic growth. The state’s Silver State Works program offers employers incentives to offer on-the-job training to unemployed workers who can then be hired permanently at the end of training if they prove a good fit for the position. The program offers reimbursement for employer-based training of workers still receiving unemployment, and also incentive-based employment options in which businesses receive grants to support employment of new workers while they receive training with an eye toward long-term employment with the company. By providing support and wage supplements for a short period of time, Silver State Works helps unemployed workers access valuable training, while reducing the risk for businesses in the state to take a chance on renewed growth.

Source on pages 33–35

Export Intensity Growth	1	Gross State Product Growth	9
U.S. Business Policy Index	2	Growth in Share of National Exports	10
Business Tax Climate	3	High-Tech Share of All Businesses	10
Export Growth	4	Broadband Speed Availability	10
Bridge Quality	4	Kauffman Entrepreneurship Index	13
Short-Term Job Growth	6	Long-Term Job Growth	17
Broadband Provider Availability	6	Economic Output per Job	17
Road Quality	6	Cost of Living	20
New Startup Rate	7	Export Intensity	23
Small Business Lending	8	H.S. Advanced Placement Scores	24
State and Local Tax Burden	8		



NEW HAMPSHIRE

Since taking office in 2013, Governor Maggie Hassan has made improved workforce development a key item on her Innovate NH Jobs agenda. As part of this focus, the Hassan administration and New Hampshire policymakers have collaborated to increase aid for scholarships, provide job training grant funding, invest in career and technology education centers, support collaboration between higher education and industry, and restore funding to the state's colleges and universities. The restoration of funding to higher education was tied to an in-state tuition freeze, targeted at making it easier for New Hampshire residents to obtain the education they need to

pursue a career.

One of New Hampshire's key programs in support of workforce development is the New Hampshire Job Training Fund. The fund provides matching grants to private businesses located in or looking to relocate to New Hampshire to help pay for a variety of on-site and classroom-based workforce training activities. The program requires companies receiving grants to work with the state's system of community colleges to obtain training if it is feasible. Community colleges around the state have business and training directors tasked with making sure that businesses can easily and effectively make use of their programming to improve their workforce.

New Hampshire has also aimed to support continued innovation and modernization by the state's manufacturers through its Research and Development Credit program. The program, made permanent and granted continued funding by the 2013 legislative session, provides a credit against business profit taxes for "qualified manufacturing research and development" spending. Qualified companies can receive a credit equal to 10% of the wages spent on qualified research and development, with a maximum credit of \$50,000. The program provides flexibility in use of credits, allowing businesses to carry credits forward for up to five years. By cutting the costs of research, the tax credit is aimed at helping New Hampshire industry pay innovative talent, bring new products to market, and create jobs.

Small business promotion is another part of New Hampshire's growth agenda. The state's new Pathway to Work initiative, launched in 2013 as part of the preexisting New Hampshire Working program, offers unemployed aspiring entrepreneurs support to launch their own business, creating a route to self-employment. The initiative allows participants to continue receiving unemployment benefits as they start their business, while providing them with access to training and support services to help them build the skills they need to succeed. Participants no

longer have to meet requirements to search for work in return for unemployment benefits, and are freed to focus on getting their new business up and running. They are also given more freedom to earn business income during program participation without disqualifying themselves from benefits. By giving participants freedom from typical unemployment regulations, the program provides a bridge to self-employment for aspiring entrepreneurs.

Unemployed workers in New Hampshire can also access workforce training opportunities through New Hampshire Working's Get Ready to Work initiative. Get Ready to Work offers individuals access to skill assessment testing and connects them with opportunities to take part in remedial training programs designed to help better prepare them for the demands of the workplace.

Source on pages 33–35

Academic R&D Intensity	4	Adjusted Median Family Income	16
Legal Environment	4	STEM Job Concentration	18
High-Tech Share of All Businesses	5	Per Capita Income Growth	19
State and Local Tax Burden	7	U.S. Business Policy Index	19
Educational Attainment	7	H.S. Advanced Placement Scores	20
Labor Force Utilization	7	Broadband Provider Availability	21
Business Tax Climate	8	Productivity Growth	24
Higher-Ed Efficiency	8	New Startup Rate	24



NEW JERSEY

New Jersey's five-year Unified Workforce Investment Plan embraces a strategy to support seven key industries, including advanced manufacturing, financial services, and technology entrepreneurship. One of the plan's core values is to steer government investment "based on industry need." To help the state serve this end, New Jersey's Employment and Training Commission has created talent advisory councils in each of the target industries. Each group is made up of 16 to 20 employers and industry members, representing "companies of different sizes, sub-industries and from different regions of the state."⁹² The councils are tasked with meeting several times

per year to discuss the workforce needs of their industry to gather critical private sector input about the design and implementation of state programs.

New Jersey's new Helmets to Hardhats pilot program, adopted in 2013, helps military veterans find work in the state's construction industry. Launched in the state's New Jersey Turnpike Authority, the new 18-month initiative includes a requirement that a minimum of 5% of all labor on turnpike highway projects is provided by contractors taking part in the national Helmets to Hardhats program. The program sets benchmarks and goals for hiring veterans, who may receive transition support and apprenticeship training through participating contractors.

Since taking office in 2010, Governor Chris Christie's administration has spearheaded the development of a State Strategic Job Growth Plan, which advocated making "goal 1" targeted economic growth built around industry clusters. Looking to increase the state's competitiveness, Governor Christie has called for increasing the length of the K–12 school year and lengthening school days, arguing that more classroom time will better prepare the state's young people for the careers of the future.

New Jersey offers unemployed individuals a variety of resources to develop new skills and connect to training opportunities to build their employability. The state's Jersey Job Clubs connect job seekers to a "career development professional" who can help guide them through the process of identifying sectors with job opportunities, and steer them toward skills-based volunteer opportunities. The program also works to build soft skills, such as networking and self-marketing. Training support is available through the state's Opportunity4Jersey grant program, which provides up to \$6,000 per trainee to provide skills training to unemployed individuals seeking jobs in one of the state's target industries. The program works with industry, educators, and trainers to tailor training programs to the needs of employers with specific jobs to be filled.

Spurring technology entrepreneurship is another target for economic growth in New Jersey. The state's Technology & Entrepreneurship Talent Network brings together a network of employers and workforce education professionals to address ways to better train aspiring entrepreneurs and technology workers. Companies involved in the effort may access state business support resources, while also having a hand in advising the education sector on the needs of industry in the state. The network also engages job seekers and aspiring entrepreneurs, offering access to networking events, training opportunities in the technology industry, and training on becoming a business owner at "entrepreneurship boot camps."

Source on pages 33–35

Broadband Speed Availability	2	Adjusted Median Family Income	15
Broadband Provider Availability	3	Export Intensity Growth	17
Economic Output per Job	5	Small Business Lending	17
Educational Attainment	5	Higher-Ed Efficiency	18
New Startup Rate	6	Growth in Share of National Exports	20
High-Tech Share of All Businesses	9	Export Growth	24
H.S. Advanced Placement Scores	10	Labor Force Utilization	25
STEM Job Concentration	12		



NEW MEXICO

New Mexico offers notable workforce development support to business through its Job Training Incentive Program (JTIP). JTIP reimburses between 50% and 75% of the costs incurred in skills training for new workers, depending on where the worker receiving training is located. Jobs in areas of higher economic distress receive higher reimbursement rates. Companies that meet certain other wage and skills requirements can receive additional training reimbursement. To qualify for the program, businesses must be in the manufacturing industry or be service providers that receive more than half of their revenue outside New Mexico. The goal is to

invest state training funds into jobs and industries that bring new wealth into the state, multiplying the impact of the initial investment. Companies must also be in the process of expanding their workforce to qualify for JTIP funding. Applicants can receive approval for reimbursement in as little as one month, offering companies nearly immediate support for emerging training needs.

The New Mexico Workforce Connection offers access to other training and skills support programs, including a WorkKeys Assessment System. WorkKeys is a job skills assessment system that tests potential workers for important work-related skills, helping companies identify promising workers, find the talent they need to expand, and avoid problems with bad hires. The state also makes use of apprenticeships for on-the-job training, providing aspiring workers with connections to apprenticeships in a multitude of skilled trades.

Governor Susana Martinez has advocated for small-business-friendly reforms since taking office in 2011, including ordering the creation of an Office of Business Advocacy in New Mexico's state government. The office works in partnership with the New Mexico Small Business Development Center network and several other partner organizations to represent the interests of small business in their interactions with state government and bureaucracy. Staff at the office act as "caseworkers," fielding inquiries and helping small businesses sort through issues dealing with government agencies, helping cut through red tape and advocating for business-friendly operations in state government.

Small business and aspiring entrepreneurs in New Mexico can seek out support in getting their dreams off the ground through WESST, a "statewide small business development and training organization" with six offices located in cities throughout the state. WESST is funded by a partnership of state government, federal agencies, and private sector sponsors committed to helping small entrepreneurs launch sustainable, successful businesses. Services offered include one-on-one business counseling, specialized

training services, workshops, educational networking events, marketing support, and financial literacy training.

WESST also offers an Individual Development Account (IDA) program designed to help lower-income individuals interested in starting a business save money by attending money management classes and setting up a savings account. Over a two-year period, every dollar a participant saves in their IDA account is matched by four dollars from WESST, with the goal of reaching an account total of \$3,000 during the program. WESST offers support to female entrepreneurs through its women's business center, provides loans to new entrepreneurs, and offers courses in search engine optimization, helping small entrepreneurs make better use of Internet sales.

Source on pages 33–35

Kauffman Entrepreneurship Index	6	College Affordability	13
Bridge Quality	7	Higher-Ed Degree Output	14
STEM Job Concentration	9	Export Intensity Growth	15
Academic R&D Intensity	9	High-Tech Share of All Businesses	19
State and Local Tax Burden	13	STEM Job Growth	20
Cost of Living	13	Per Capita Income Growth	24



NEW YORK

Looking to help drive entrepreneurial job creation in upstate New York, the administration of Governor Andrew Cuomo launched START-UP NY (State University of New York Tax-free Areas to Revitalize and Transform Upstate New York) late in 2013. The new initiative creates new tax-free business zones in university communities around the state, working in partnership with the State University of New York system. Businesses willing to locate in these zones will be able to operate free of income, property, corporate, and sales taxes for 10 years. Businesses will also have access to support from their host university, including support from experts

and research facilities located at the host school. Participating businesses are required to support the school's "academic mission," building a partnership beneficial to both the school and the business.

New York embraced reforms to its unemployment insurance and workers' compensation systems as a way to cut costs passed to businesses, creating a more enterprise-friendly environment for business growth and job creation. The new reforms were aimed at cutting interest costs, improving competitiveness in the insurance market, and improving minimum coverage for workers. The workers' compensation reforms alone saved businesses in the state nearly \$500 million, and the overall reform package is projected to save more than \$1.2 billion.

Seeking to combat youth unemployment and help young people in the state's inner cities build valuable job skills, New York created the New York Youth Works Program. Economically disadvantaged young people (age 16–24) living in eligible communities are able to access employment support services and job training through the program, helping them enter the workforce. Businesses that hire a certified participant in the program are eligible to receive up to \$4,000 in tax credits, helping ease the cost of adding new employees while providing valuable work experience for young people in need of a new opportunity.

New York's Pathways in Technology Early College High School (P-TECH) offers young people interested in a career in information technology access to an innovative approach to job skills education. P-TECH, working with public and private sector partners, offers a combination of "elements of high school, college, and the professional world" aimed at giving students the skills they need to succeed in the workforce. Launched in New York City in 2011, the model has now been adopted by the state, which is investing \$28 million into 16 regional partnerships to build programs focused on industries including technology, manufacturing, and health care. Programs were selected through a competitive process and are built around partnerships between high schools, colleges, and the private sector,

ensuring that the skills training offered to students will translate into higher education, while also being focused on real-world, industry-driven needs.

Aiming to ensure the state's communities and businesses have access to the affordable energy they need to grow, New York and the Cuomo administration created the New York Energy Highway Blueprint initiative. The blueprint includes multiple policy recommendations aimed at modernizing and upgrading the state's energy transmission and generation infrastructure. As part of the plan, the state's Public Service Commission is identifying and approving new transmission projects to improve the grid, is making preparations for power plant retirements, and is working to expand natural gas transmission and availability to businesses throughout the state. The state is also looking to add new generation capacity and ease the transition to cleaner sources of energy. The plan includes an enhanced focus on building public-private partnerships to improve energy production and delivery in the state.

Source on pages 33–35

Economic Output per Job	3	New Startup Rate	15
Educational Attainment	4	College Affordability	16
Broadband Speed Availability	4	Long-Term Job Growth	18
H.S. Advanced Placement Scores	7	Small Business Lending	18
Per Capita Income Growth	8	Academic R&D Intensity	19
Kauffman Entrepreneurship Index	13	Broadband Provider Availability	25



NORTH CAROLINA

Seeking to improve the state's workforce training outcome, unify existing resources, and tie program offerings more closely to the needs of business, Governor Pat McCrory launched NCWorks, a new cohesive workforce development initiative. The initiative, involving workforce stakeholders from the public, private, and education sectors, will be rolled out over a 12-month period in 2014 and early 2015. North Carolina's system of community colleges will be central to the new unified effort, which plans to meet with 1,000 businesses in 100 counties in its first 100 days, gathering input to help connect the initiative to industry needs. In addition to

gathering private sector input and workforce partners under one banner, the new initiative plans to keep detailed data to drive policy decisions and program offerings, to make expanded use of the state's Commission on Workforce Development, and to create a more unified partnership between the state's community colleges and the Department of Commerce. By bringing resources under one roof, and redoubling efforts to tie workforce development activities to industry needs, the new initiative is designed to make better use of the state's large portfolio of workforce development assets.

While North Carolina is overhauling its workforce development system, it already has a strong mix of skills training options available for businesses seeking to meet their workforce needs. This includes the state's strong continuing education program, which trains more than half a million people each year. Community colleges throughout the state offer nearly 1,500 short, occupational skills development courses to help workers upgrade their skills, prepare for new jobs, and obtain certifications. Businesses work in partnership with the continuing education system to develop and access the right courses for their new and existing employees through the state's Customized Training Program.

In addition to the popular continuing education offerings, North Carolina offers other workforce development services including skills assessments, preemployment training, and on-the-job training. Depending on the options selected by businesses, grants and reimbursement of training costs can be available to help offset costs and make training to remain competitive less of a burden. North Carolina's workforce development network can also provide screening and testing services, identifying qualified individuals and ensuring that companies only spend time interviewing the right applicants. Finally, North Carolina provides a 100-day, "no fault guarantee" for unemployment

fees for applicants referred to a participating business by the state workforce program. If the new employee doesn't meet the needs of the position and must be let go, the employer is not on the hook for unemployment insurance taxes, reducing the cost of workforce turnover when a hire doesn't work out.

Infrastructure in support of industrial development is another investment North Carolina's leaders have stepped up to fund as part of the state's economic growth agenda. The state offers both an Industrial Road Access Program and an Industrial Rail Access Program. Under these programs, the state's department of transportation is able to fund construction of road and rail needed to offer access to new and expanding industrial facilities in the state, supporting job creation and building up the state's manufacturing sector. The rail access program includes requirements for matching funds from local governments and private industry, supporting the state investment.

Source on pages 33–35

Academic R&D Intensity	5	H.S. Advanced Placement Scores	18
STEM Job Growth	6	Economic Output per Job	19
Legal Environment	6	Productivity Growth	19
Long-Term Job Growth	14	Broadband Speed Availability	20
High-Tech Share of All Businesses	14	College Affordability	21
Short-Term Job Growth	15	Kauffman Entrepreneurship Index	23
Road Quality	15	Cost of Living	23
Gross State Product Growth	16	STEM Job Concentration	24



NORTH DAKOTA

Backed by continued strength in its booming oil industry and growth in its high-performing small metropolitan areas, North Dakota continues to lead the nation in economic performance in this year's report. With this growth, however, has come a set of challenges and growing pains, leading state leaders to continue to expand efforts to ensure that the state has the workforce and resources it needs to support continued rapid private sector growth.

Workforce availability has been a challenge throughout the state over the past several years. Faced with more than 25,000 unfilled job openings, the state launched a new Find the Good Life in North Dakota advertising and outreach program in early 2014. Backed by funding from the state and a private sector partner, the initiative is aimed at promoting the state's quality of life and economic opportunity in order to attract new workers to the state. Outreach efforts will include a website where prospective workers can access information about opportunities for skilled jobs in North Dakota.

Housing continues to be a major challenge to the state, with shortages in virtually every region presenting a potential hurdle to economic growth. Looking to spur more private sector investment in housing, the state created the North Dakota Housing Incentive Fund. The fund was capitalized with \$20 million in contributions from the private sector. Each contributor receives a dollar-for-dollar tax credit against their state income tax liability. Contributed funds are used to support the development of affordable, multifamily housing in growing communities throughout the state, with a focus on the oil regions. Private sector contributors can state a preference for where their resources are invested, allowing contributing companies and individuals to help address housing needs in specific communities. Private sector investors responded. Although the fund's tax credit incentive was authorized through the end of 2014, the fund became fully capitalized in early January 2014 after only eight months.

North Dakota's policymakers are taking steps to enhance the state's STEM education and workforce development system. The state has invested in creation of the ND STEM

Network, bringing together educators, universities, and private sector stakeholders to build partnerships to expand and enhance STEM education in the state. The state's TrainND system also offers employers and individuals access to a variety of technology-related training and education opportunities, working through the state's system of community colleges to deliver training tied to current industry needs. While North Dakota is adding STEM jobs faster than any other state, it remains a laggard in STEM job concentration, an indication that there is plenty of room for high-tech growth before reaching the national average.

As the only state in the nation with its own state-owned bank, North Dakota has found itself with a unique tool to drive investment in business and job growth throughout the state. The Bank of North Dakota is able to offer a variety of lending and business support services, including programs tailored to the needs of agriculture and small business. Programs include the state's PACE (Partnership in Assisting Community Expansion) family of loan programs, which work with local lenders to expand access to capital and provide interest buy-downs on loans to new and expanding companies. The bank also operates revolving loan funds for infrastructure and recently announced a new program that allows residents to consolidate student debt at lower rates. The bank is seeing record profits from its activities and returns those profits to the state's general fund, providing added fiscal flexibility to state lawmakers.

Source on pages 33–35

Long-Term Job Growth	1	Road Quality	4
Short-Term Job Growth	1	Export Growth	6
Gross State Product Growth	1	Export Intensity Growth	11
Per Capita Income Growth	1	Academic R&D Intensity	11
STEM Job Growth	1	U.S. Business Policy Index	12
Legal Environment	1	Small Business Lending	14
Higher-Ed Degree Output	1	State and Local Tax Burden	15
College Affordability	1	Growth in Share of National Exports	17
Productivity Growth	2	Bridge Quality	19
Labor Force Utilization	2	Higher-Ed Efficiency	21
Educational Attainment	3	Economic Output per Job	25
Adjusted Median Family Income	4	Kauffman Entrepreneurship Index	25



OHIO

In 2012, at the direction of Governor John Kasich, Ohio created the Governor's Office of Workforce Transformation. This new office, with a director reporting to the governor, is tasked with three main goals: identifying business workforce needs, coordinating the skill needs of employers with education and training offerings, and realigning the state's workforce development system to increase efficiency and effectiveness.

As part of the administration's efforts, the state also created a Governor's Executive Workforce Board, made up of business and workforce development leaders. With a majority of board members from the private sector, the board is intended to ensure that the needs of business are kept at the center of the state's workforce development efforts. The board has several work groups tasked with implementation of initiatives in targeted areas, including workforce system reform, business engagement, education and training, and youth career pathways.

Seeking to tie reforms in the workforce system to private sector guidance and real-world data, the Office of Workforce Transformation launched creation of an "in-demand jobs report" in 2013, making use of labor market statistics, job posting data, and online job forecasting. The online forecasting tool solicits information from 1,800 companies around the state. By assessing their input on the "top 5 occupations" they feel will be hardest to fill in the near term, the state aims to tie its efforts to redirect system activities to actual private sector needs. The state also launched an inventory of education and training programs during 2013, and is seeking to enhance and build on its efforts to create industry sector partnerships, bringing industry to the table to work with workforce development stakeholders to more effectively meet their talent needs. One example of these efforts is the state's Ohio Insurance Workforce Council, which since its creation in 2011 has led to the creation of new academic programs, garnered private investment to promote careers in the field, and launched a website to raise the profile of the industry with potential workers.

The Ohio workforce reforms have also looked to improve the career placement system for job seekers. The state's existing OhioMeansJobs program piloted new enhancements in 2013 that give job seekers more information about the pay and outlook of job fields, available openings, and educational and training opportunities that can help prepare them for specific career paths. The system improvements are set to go active

statewide during 2014, allowing job seekers to take a more detailed look at the career prospects and opportunities available in the state.

Ohio's Incumbent Workforce Training Voucher Program is built around the idea of leveraging public-private partnerships to fund workforce skills training. The program, backed by an additional \$30 million in state funding in 2013, offers employers matching grants of up to \$4,000 per worker to fund training of their existing workforce. The goal of the program is to identify needs before skills gaps lead to job losses. Funding is provided on a first-come, first-served basis to companies in qualified industries. Participating companies are required to show that the funded training will help them retain a skilled workforce and improve "company processes and competitiveness."⁹³

Source on pages 33–35

U.S. Business Policy Index	9	New Startup Rate	22
Road Quality	12	STEM Job Concentration	23
Adjusted Median Family Income	13	Academic R&D Intensity	24
Export Intensity	13	Broadband Speed Availability	24
Cost of Living	15	Legal Environment	25
Broadband Provider Availability	18	Labor Force Utilization	25
High-Tech Share of All Businesses	21		



OKLAHOMA

Embracing prudent fiscal policy and budget cuts late last decade, Oklahoma was able to weather a \$500 million budget deficit and has seen its constitutional reserve fund recover from \$2.03 million in 2011 to \$530 million in early 2014. Ten-year job growth and per capita income growth are key performance factors driving Oklahoma to 13th place for overall economic performance in this year's report. Between 2003 and 2013, Oklahoma's per capita personal income increased 18.5% (adjusted for inflation), ranking it 5th nationally. Over the same period, Oklahoma added about 175,000 jobs for 12% growth, ranking it 7th. Oklahoma has weathered the recession better than

most states. This sustained job growth has helped keep the state's unemployment rate the 14th-lowest in the nation at 5% as of early 2014, well below the national average of 6.6%.

Energy continues to be a major contributor to Oklahoma's economic character. According to the U.S. Energy and Information Administration, Oklahoma is one of the top producers of energy in several key categories in 2013, including 5th in crude oil production, 4th in production of natural gas, and 4th in wind-generated electricity. In addition to production, Oklahoma is home to five of the nation's oil refineries processing 500,000 barrels per day. The oil and gas industry alone is responsible for more than \$60 billion in activity, representing one-third of Oklahoma's economy.

Export growth remains another bright spot for the Oklahoma economy, with the state's export value up from \$5.35 billion in 2010 to \$6.9 billion in 2013. The top exports on that list include aerospace parts and equipment; wheat, rye, and cereal flours; liquid pump components; and electric conductors.

It should be no surprise to see aerospace components top the list of Oklahoma exports, considering the high level of activity and economic impact contributed by the aerospace industry. According to the Oklahoma Department of Commerce, there are more than 500 companies that operate in the aerospace sector and support 120,000 employees within the state. Oklahoma is leveraging the potential of this high-growth industry and is working to fill its workforce pipeline with an Aerospace Engineer Workforce Tax Credit. This credit is geared specifically to building and attracting the highly skilled aerospace engineering positions needed to sustain and grow the local aerospace industry. This tax credit allows companies to take up to a 10% credit for compensation over the first five years of an engineer's employment. This credit is reduced to 5% if the engineer graduated from a university outside of

Oklahoma, and caps out at \$12,500. Engineers themselves are also eligible to receive a tax credit of up to \$5,000 each year for no more than five years. Currently, the Aerospace Engineer Workforce Tax Credit is set to expire at the end of 2014.

In early 2014, state lawmakers passed new legislation to designate STEM communities in the state. The new law establishes an application process to be designated a STEM community for regions deploying key best practices in the field, including industry partnerships, awareness building, action plans for education and training, and resource deployment. The concept originated from the statewide OneOklahoma plan co-developed by public and private sector representatives from across the state.

Source on pages 33–35

Per Capita Income Growth	5	Short-Term Job Growth	19
College Affordability	5	Gross State Product Growth	19
Cost of Living	6	Higher-Ed Efficiency	19
Long-Term Job Growth	7	Growth in Share of National Exports	21
State and Local Tax Burden	12	Export Intensity Growth	22
Export Growth	13	Productivity Growth	23
Higher-Ed Degree Output	16	U.S. Business Policy Index	24
STEM Job Growth	17		



OREGON

Launched in 2013, Oregon's Connecting to the World of Work Program provides more resources to the state's education system to prepare students for the **workforce** and meet the state's "40-40-20 vision" of having 40% or more of residents with a bachelor's degree or higher, 40% or more with associate degrees and postsecondary credentials, and 20% or less with a high school education or equivalent. The Connecting to the World of Work Program provides funding to a variety of initiatives targeted at workforce improvement, including building a regional STEM network, grants to consortiums of schools and colleges to develop a more

flexible curriculum leading to career pathways, funding for at least three new STEM schools, and increased funding for STEM and arts outreach to underserved student populations, including girls.

Oregon renewed a commitment to improving career and technical education for high school students by providing continued funding for its Career and Technical Education (CTE) Revitalization Grant Program during the 2013 legislative session. The program is aimed at supporting expanded CTE programming while increasing STEM curriculum. It gives priority to programs that build partnerships with the private sector, connecting their programming to the workforce needs of Oregon employers and their students to promising job opportunities upon graduation. The state launched a new community college outreach program, requiring the Department of Community Colleges and Workforce Development to provide all 11th and 12th graders in the state with information about community college programming and workforce training opportunities, and calling for increased coordination of efforts between the state's public schools and community colleges.

For more than 30 years, Oregon's business community has worked with state officials to foster continual improvement in workforce development systems through the Oregon Employer Council. This nonprofit corporation is made up of 20 local councils around the state, representing a wide variety of industries and employers. Each year, the council holds events to gather business input into how workforce and employment services programs in the state operate. The council also works to increase private sector awareness of economic and workforce challenges facing the state. By providing a voice for business, the council ensures that Oregon's workforce development system is better prepared to meet the real-world needs of industry.

Oregon prioritized infrastructure improvement as a route to increased economic growth and job creation. The state's Infrastructure Finance Authority (IFA) works with communities to identify and invest in needed infrastructure upgrades, providing access to financing, grants, and technical assistance. Investment in improved port infrastructure is one area of focus, with several IFA funds directed toward improving the state's ports. These include a Marine Navigation Improvement Fund, Port Planning and Marketing Fund, and Port Revolving Loan Fund, all aimed at helping open Oregon to more international trade.

According to a 2012 state Broadband Adoption Study, eastern Oregon offered the lowest level of access while central Oregon and Portland had the highest. The Oregon Broadband Advisory Council was created through legislative action in 2009 to develop strategic initiatives that encourage adoption by the general public and industry. Along with developing reports and data on current broadband and telecommunications infrastructure, the council has also launched the Oregon Broadband Map with interactive data on coverage, maximum speed available, number and name of service providers, Wi-Fi hotspots, and other technologies data.

Source on pages 33–35



Productivity Growth	1	Broadband Speed Availability	14
Gross State Product Growth	2	Long-Term Job Growth	16
Small Business Lending	6	STEM Job Growth	16
Economic Output per Job	7	Export Intensity	19
Road Quality	8	Legal Environment	21
Broadband Provider Availability	9	Higher-Ed Degree Output	21
Short-Term Job Growth	12	Educational Attainment	24
Business Tax Climate	12	Bridge Quality	24
STEM Job Concentration	14		



PENNSYLVANIA

Pennsylvania, long a leader in energy and manufacturing, has made diversification of the state's technology economy a key goal of its economic growth agenda. The commonwealth is looking to spur startups and development in technology-based and biotechnology sectors with programs like Innovate PA. Through Innovate PA, the state economic development department is tasked with selling \$100 million in tax credits to eligible insurance firms, with the proceeds going to Ben Franklin Technology Partners to fund regional technology accelerators like Venture Investment Program and Pennsylvania's Life Sciences Greenhouses. Ultimately,

this injection of capital will be used to fuel technology startups and increase the number of high-paying technology jobs throughout the commonwealth.

As part of the commonwealth's commitment to innovation, Pennsylvania has launched the Discovered and Developed in PA Program (D2PA). D2PA provides seed funding to innovative programs and companies in support of "entrepreneurship, technology transfer, business outreach" and increasing economic growth capacity. The competitive grants, administered by the commonwealth's Department of Community & Economic Development (DCED), can be used for a variety of project expenses, giving innovators the flexibility they need to get projects up and running and bring innovative new technologies to market.

New and aspiring entrepreneurs in Pennsylvania that need help getting up and running are offered support through the commonwealth's Small Business Champion Network (SBCN). Staff at the network offer small business owners free support services, connections to local and regional networks of experts, and assistance in navigating Pennsylvania's portfolio of business support services and programs. By giving small businesses one point of contact, the SBCN is designed to help new entrepreneurs get government support "quickly and effectively," cutting down on potential confusion and red tape.

Governor Tom Corbett has made calls to improve the Pennsylvania's education system, including \$25 million in his latest budget for scholarships through the Ready to Succeed scholarship program. The program is designed to support low- and middle-income students by providing access to postsecondary education for two- and four-year degrees offered at Pennsylvania colleges and universities. The scholarships are part of the governor's more comprehensive Ready to Learn agenda, which provides resources and strategic efforts to improve every level of education in the commonwealth.

Energy production continues to be a major component of Pennsylvania's economic makeup. Rapid growth of hydraulic fracturing and drilling activity in the Marcellus Shale has helped Pennsylvania become one of the nation's fastest-growing producers of natural gas, with production quadrupling from 2009 to 2011 and growing 72% between 2011 and 2012, making the commonwealth the nation's 3rd-largest producer of natural gas. Pennsylvania was also the 4th-largest coal-producing state in 2012.

Seeking to support continued growth in the energy industry, Pennsylvania offers a Targeted Industry Program providing grants to support workforce training in high-demand industries, including energy production. The commonwealth's WEDnetPA (Workforce and Economic Development Network of Pennsylvania) program also offers training funds to the energy industry as part of Pennsylvania's Guaranteed Free Training Program, which offers flexible skills training tailored to the needs of industry in partnership with the state's community colleges and universities. The Corbett administration has proposed increased funding for WEDnetPA and workforce training as part of the state's 2014–2015 budget cycle.

Source on pages 33–35

Academic R&D Intensity	7	Per Capita Income Growth	21
Growth in Share of National Exports	11	Economic Output per Job	22
Adjusted Median Family Income	14	STEM Job Concentration	22
Educational Attainment	16	Business Tax Climate	24
Broadband Speed Availability	16	STEM Job Growth	25
Export Intensity Growth	18	U.S. Business Policy Index	25
Export Growth	19		



RHODE ISLAND

Rhode Island has organized its workforce development activities around a single point of contact through its Workforce Development Services Division. The division offers a variety of services, including one-stop career centers and a variety of training services for workers and businesses. Efforts are centered around a variety of industry partnerships organized through the Governor's Workforce Board. Each partnership, focused on a target industry, is designed to address skills gaps that stand in the way of job creation and enterprise growth. Industries such as biosciences, manufacturing, and the marine trades are included in these

efforts, which bring together stakeholders from education, community organizations, and the business community to identify ways to coordinate their activities to create a growth-friendly environment.

Governor Lincoln Chaffee is supporting expanded skills training in Rhode Island, calling for additional state spending to supplement federal workforce training dollars in his 2013 and 2014 budgets. Over the past year, state lawmakers have stepped up to adopt several policy changes to improve the state's skills training offerings. These included opening internship and apprenticeship programs to high school students age 16 or older and creating a new Back to Work Rhode Island Program. The program allows workers who are receiving unemployment benefits to take part in up to six weeks of training with participating employers. Offered at no cost to employers, the program gives the unemployed a chance to acquire new skills and position themselves for continued employment, while connecting businesses to potential employees.

The 2013 state legislature created a new council of economic advisors focused on bringing together new information and data about the state's economy to help policymakers tailor the state's future economic and workforce development activities to realities in the market. The state also adopted legislation to replace its Rhode Island Economic Development Corporation with the new Rhode Island Commerce Corporation. As part of the reforms embraced during 2013, the state will create a new secretary of commerce position to be established in 2015, giving a fresh face to the state's economic development activities.

Rhode Island offers employers with workforce training needs access to a variety of support funding and grants. The state's Innovative Partnership Grants program is available to support development of industry-education partnerships for work readiness and skills training. Industry partners can range from single employers to industry associations, with grants aimed at helping build partnerships with significant industry involvement to address skills gaps and help match workers with open

jobs. Recognizing that industry needs for skills upgrades can be immediate, the state has also created an Express Incumbent Worker Training Grant program. This initiative of the Governor's Workforce Board offers matching grants of up to \$5,000 within weeks of application to businesses needing quick access to training for current employees.

Export skills training is another focus for Rhode Island's workforce development activities. The state's Export Management Training Grant Program offers matching grants to businesses seeking training necessary to help them access lucrative foreign markets. The program includes export training programs offered by the state to help Rhode Island companies "integrate the export process into their businesses," by training their employees on international trade protocols and practices.

Source on pages 33–35

Broadband Speed Availability	1	Economic Output per Job	16
Broadband Provider Availability	1	Higher-Ed Efficiency	17
Academic R&D Intensity	3	Labor Force Utilization	18
High-Tech Share of All Businesses	8	STEM Job Concentration	21
New Startup Rate	14	Per Capita Income Growth	22
Educational Attainment	15		



SOUTH CAROLINA

South Carolina remains a national leader in export strength in this year's report. The year 2013 was a record one for international trade in the Palmetto State, with South Carolina businesses making more than \$26 billion in sales to more than 202 foreign markets.⁹⁴ While South Carolina is the 24th-largest state by population and 27th in total GDP,⁹⁵ it ranks 17th nationally in exports, punching above its relative weight.

To build on this record of success, South Carolina offers businesses a variety of export support services designed to ease their access to foreign markets. The state maintains trade offices in China, Japan, and Germany, representing the interests of South Carolina business in key export markets. The state's active Export Assistance Program also offers export training, trade counseling, market research, and logistical support services, and organizes trade missions to raise the profile of South Carolina businesses in foreign markets. The state's Department of Commerce also operates an International Trade Show Assistance Program, providing grants of up to \$2,500 to help South Carolina businesses defray the costs of taking part in international trade shows, easing the burden of exploring new market opportunities.

South Carolina has also made large investments in port infrastructure over the past several years, upgrading the state's port system to handle larger ships and more volume, hoping to maintain a competitive edge.⁹⁶ The South Carolina Port Authority opened a new "inland" port designed as a hub to transfer shipping containers between rail, trucks, and the Port of Charleston. The goal of the new infrastructure is to attract more businesses to the state by easing the logistics and costs of moving materials and finished goods to and from port facilities in the state.

Workforce development is also a focus of South Carolina's economic development efforts moving forward. The state's Center for Accelerated Training Technologies and its readySC initiative—operated within the state's technical college system—brings together 16 colleges, government agencies, and businesses to design and deliver industry-focused workforce training solutions. Qualified companies creating permanent, competitively paid jobs in industries targeted for growth can receive support at little to no cost in developing training tools and procedures needed to start or expand their business. The program provides

project managers tasked with working directly with the participating company from start to finish, to ensure that the customized training meets their evolving needs.

South Carolina also makes use of targeted tax credits to support job creation and skills training. The state's job development credit makes use of the personal income taxes withheld from new jobs created to provide a new or expanding company with tax credits to support their job creation activity. The program helps lower the cost of investment in expansion, promoting growth by South Carolina companies. The credits are capped per employee, but can be used for up to 10 years, offering flexibility and support to growing companies at no direct cost to the state, which only forgoes the tax income that would not have existed had the job not been created. The state also offers businesses access to a job retraining tax credit, offering reimbursement of up to \$500 per employee per year for eligible training costs needed to upgrade the skills of a company's existing workforce.

Source on pages 33–35

Export Intensity	5	Bridge Quality	17
Export Intensity Growth	8	Long-Term Job Growth	21
STEM Job Growth	8	Cost of Living	21
Short-Term Job Growth	9	H.S. Advanced Placement Scores	21
State and Local Tax Burden	9	Kauffman Entrepreneurship Index	22
Growth in Share of National Exports	15	Export Growth	23
New Startup Rate	16	High-Tech Share of All Businesses	25
Road Quality	16	Higher-Ed Efficiency	25
U.S. Business Policy Index	17		



SOUTH DAKOTA

South Dakota is a leader in business climate ratings, touting extensive enterprise-friendly tax policies, including no corporate income tax, no personal income tax, no personal property taxes, no business inventory tax, and no inheritance taxes. The state also offers refund opportunities to qualified businesses on other classes of tax, including sales, use, and contractors' excise taxes. The state actively promotes its policies as creating an "unbeatable tax climate," making the state's tax environment a key pitch to new and expanding businesses.

In addition to an aggressive tax policy, South Dakota has made investments in workforce skills enhancement to attract businesses and help its homegrown entrepreneurs succeed. The state's Workforce Development Plan offers grants to businesses to cover up to 50% of the costs of training for jobs meeting wage and benefit requirements. Recognizing the need for multiple types of skills development, the program funds training in multiple areas, including hard skills needed to perform the technical details of a position, soft skills including communication and teamwork, and basic academic skills such as reading and writing needed to perform in the workplace. The state also maintains a Business and Industry Training program, working with companies to develop customized training solutions. Individual training is also available to job seekers through South Dakota's Career Learning Centers. The centers' career specialists work with job seekers to direct them to the proper training needed to meet industry needs, and connect them to funding to defray the costs of upgrading their skills.

South Dakota workforce development efforts include attempts to keep young talent in the state through the Dakota Seeds Internship and Assistantship program. Dakota Seeds covers up to one-half of the wages of qualified undergraduate or graduate students working as interns or assistants at South Dakota companies. The program is intended to "establish a pipeline for permanent employees" from the state's colleges and universities to growing South Dakota companies. Between 2008 and 2013, the program was used by more than 190 companies. Hoping to expand on its success, Governor Dennis Daugaard has committed to continued funding for the program, and is expanding the scope of the program to include students in South Dakota's high schools and technical schools.⁹⁷

Seeking to increase the strength of its technology economy, South Dakota launched three new advanced research centers in 2013. The centers will focus on advanced manufacturing, composite materials, and biosciences. In addition to conducting and commercializing research conducted at the state's universities in partnership with the private sector, these centers will offer opportunities for advanced workforce training, developing new talent pools for current and future innovative businesses. In addition to investments in new research facilities, the state also created a Proof of Concept Fund in 2013. This new fund, backed by state and federal investment, will provide applicants with up to \$25,000 to conduct research on the feasibility of innovations before they are brought to market.

South Dakota's Revolving Economic Development and Initiative Fund is a model for creation of a state-capitalized, low-interest loan fund. Capitalized with funds from a short-term sales tax during the 1980s, the fund now manages more than \$110 million in assets available to provide loans to cover up to 45% of project costs supporting new and expanding companies in South Dakota. Eligible projects include land acquisition, site improvement, construction, building renovation, and machinery purchase and installation. Loans are granted at low rates of interest, for terms of 10–20 years.

Source on pages 33–35

U.S. Business Policy Index	1	Export Growth	11
Business Tax Climate	2	Small Business Lending	11
State and Local Tax Burden	3	Kauffman Entrepreneurship Index	16
College Affordability	3	Gross State Product Growth	17
Labor Force Utilization	4	STEM Job Growth	18
Export Intensity Growth	6	Road Quality	18
Per Capita Income Growth	7	Educational Attainment	20
Legal Environment	8	Growth in Share of National Exports	23
Higher-Ed Degree Output	8	Productivity Growth	25
Higher-Ed Efficiency	10	Adjusted Median Family Income	25
Long-Term Job Growth	11		



TENNESSEE

Governor Bill Haslam has made education reform and workforce development one of his “key priorities,” advocating for more private-public partnerships to shape workforce training to the needs of industry in the state. The Haslam administration’s Customer Focused Government has set measureable goals for each department in state government, including the state’s Department of Labor and Workforce Development. Current targets for 2014 include increasing the number of job seekers assisted per quarter and increasing the number of high school equivalency degrees issued in 2014 by 20% over the previous year. Goals in each department are also

tied to a “vision,” with Labor and Workforce aiming to make Tennessee’s workforce “the most employable workforce for business and industry in the nation.”

Tennessee operates a system of adult education centers in each of the state’s 120 counties to improve educational attainment. These centers offer free classes that help individuals prepare for high school equivalency exams, improve their English language skills, and enhance other basic skills to help them improve their job skills.

Looking to supply more information to drive development of its workforce development partnerships, Tennessee lawmakers approved new data reporting requirements for the state’s higher education system in 2013. The new law requires an annual report, prepared in partnership with the Department of Labor and Workforce Development, outlining the state’s current workforce needs and credential attainment across the state. State policymakers have ordered a study to develop recommended alternatives to the existing GED system, to find more effective ways to deliver more effective high school equivalency opportunities.

In addition to supporting increased educational attainment, Tennessee offers businesses a variety of training support services and funding designed to ease their workforce training efforts. The Tennessee Job Skills initiative offers support to technology companies that create “high-skill, high-wage”⁹⁸ jobs, reimbursing eligible costs incurred in training development implementation. Entrepreneurs in need of quick turnaround in receiving support for training costs can make use of the state’s Job Based Training Reimbursement program, which can receive support within the first 90 days after a new job is created and training starts. Each business works with the state to reach a contractual agreement on the cost per job for training in exchange for making a commitment for new jobs created.

The state’s FastTrack Job Training Assistance Program offers employers state support to cover costs for classroom instruction, on-the-job training, training-related travel, training vendors, and development of training materials and programming.

The state’s Rural Opportunity Initiative Enhanced Job Tax Credit provides more aggressive tax credits to businesses willing to expand to and create jobs in rural counties across the state. Businesses that create jobs in rural, economically distressed counties are eligible for a tax credit of up to \$4,500, which can be used to offset their franchise and excise tax liability to the state. The state also provides carry-forward provisions, allowing new businesses to use the credits for up to 15 years under certain circumstances. By offering companies in rural areas more tax flexibility, the program seeks to draw companies to areas that may face challenges with workforce skills or availability.

Source on pages 33–35



Road Quality	3	Bridge Quality	14
State and Local Tax Burden	5	Business Tax Climate	15
Cost of Living	5	U.S. Business Policy Index	18
Growth in Share of National Exports	7	Short-Term Job Growth	22
Higher-Ed Efficiency	9	Productivity Growth	22
Export Intensity	12	College Affordability	22
Export Growth	12	Gross State Product Growth	23
Export Intensity Growth	13	Kauffman Entrepreneurship Index	25
Legal Environment	13		



TEXAS

A Texas-sized recovery is still under way in the Lone Star State. In the past year, Texas added jobs in all of its 11 major industries, including professional and business services, trade, transportation and utilities, leisure and hospitality, education and health services, construction, mining and logging, government, financial activities, information, and manufacturing. Between February 2013 and February 2014, Texas total nonfarm employment increased by 314,200 jobs or 2.8%.

The Texas unemployment rate as of March 2014 has been at or below the national rate for 86 consecutive months. The discovery of the Eagle Ford Shale occurred around this time. During the 24-month period from July 2009 through June 2011, Texas created 49% of all new jobs in the United States, and many of those jobs were directly or indirectly connected to the state's oil and natural gas boom, centered in oil development regions like the Eagle Ford in South Texas, the Permian Basin of West Texas, and the Granite Wash play in the Texas Panhandle.

Business-friendly, lower-cost Texas is also very competitive with other countries that have traditionally attracted manufacturing. The state, for the first time, now ranks 1st in high-tech exports, according to the Tech America Foundation. In 2012, \$45 billion of shipments of semiconductors, telecommunications devices, computers, and other items left Texas bound for other countries, most notably Mexico.

The Texas Integrated Service Model has produced a workforce development system in the state focused on continuous improvement, customer engagement, and streamlined service access. In moving from a program-based system to a functionally integrated system, services are aligned to promote job seeker access to local training and jobs.

The Texas Workforce Commission's (TWC's) Skills Development Fund provides training dollars for

Texas businesses and workers. The fund incentivizes collaboration among businesses, public community and technical colleges, local workforce development boards, and economic development partners.

According to the design of the program, a business, a consortium of businesses, or a trade union identifies a training need, and then partners with a public community or technical college to fill its specific needs. Businesses work with college partners to submit proposals, develop curricula, and conduct training. The Skills Development Fund pays for the training, the college administers the grant, and businesses create new jobs and improve the skills of their current workers.

The Texas STEM Center Coalition works with Texas STEM Academies as well as all Texas schools in transforming teaching and learning methods, improving achievement in STEM education, and ensuring that all students are college-ready, career-ready, and life-ready. The seven Texas STEM Centers were created as part of Educate Texas to disseminate proven STEM practices across the state, support the T-STEM Academies and the state's mathematics and science initiatives, develop pathways to increase the number of available quality STEM teachers, create STEM professional development and curriculum, and research practices in the field.

Source on pages 33–35

Growth in Share of National Exports	1	Cost of Living	10
Long-Term Job Growth	2	Business Tax Climate	11
STEM Job Growth	2	Bridge Quality	13
Short-Term Job Growth	3	STEM Job Concentration	16
Export Intensity	3	Small Business Lending	16
U.S. Business Policy Index	3	High-Tech Share of All Businesses	17
Gross State Product Growth	4	College Affordability	17
State and Local Tax Burden	4	Labor Force Utilization	18
Kauffman Entrepreneurship Index	6	H.S. Advanced Placement Scores	19
Export Growth	7	Road Quality	19
Broadband Provider Availability	8	Productivity Growth	21
Per Capita Income Growth	9	Legal Environment	22
New Startup Rate	9	Export Intensity Growth	23
Economic Output per Job	10		



UTAH

Utah's economy remained stronger than those of most other states during 2013.

According to Utah's Workforce Research and Analysis Division of the Department of Workforce Services, one major driver of this strength is the state's robust mixture and diversity of industries. Utah's economy has been consistently ranked as one of the nation's most diverse (4th in 2012) with manufacturing in the northern Wasatch front, a varied services sector in Salt Lake County, the tech hub in Provo-Orem, mining/oil and gas in the eastern region, and leisure and hospitality in Summit County and in south-southeastern Utah.

Information technology and software is one of the more robust economic sectors in Utah, according to a study by the state's Workforce Research and Analysis Division. Employment growth in all IT segments grew faster in 2008–2012 than the Utah average, and wages paid by IT industries are higher than average wages in other industry sectors in the state. Employment in software development is 0.554% of all Utah employment in the state, a concentration more than 2.5 times higher than national average. During the five-year period of 2008 to 2012, Utah software development employment grew by 21%, compared with national growth in the sector of 9%.

The IT/software sector also dominates STEM occupations that are high in demand, are projected to grow in the next two years, and pay relatively well. According to a study commissioned by the Utah Technology Council, 7 of the top 10 STEM occupations in demand are in the IT/software sector:

1. Software developers, applications
2. Network and computer systems administrators
3. Software developers, systems software
4. Computer network architects
5. Computer network support specialists
6. Computer user support specialists
7. Computer programmers
8. Medical and health services managers
9. Nurse anesthetists
10. Sales representatives, wholesale and manufacturing, technical and scientific products

Source on pages 33–35

Short-Term Job Growth	2	Legal Environment	8
Long-Term Job Growth	3	Cost of Living	8
Gross State Product Growth	3	College Affordability	8
Growth in Share of National Exports	3	Business Tax Climate	9
Higher-Ed Degree Output	3	Academic R&D Intensity	10
Export Intensity	4	U.S. Business Policy Index	10
Export Intensity Growth	4	Broadband Speed Availability	12
STEM Job Growth	4	STEM Job Concentration	13
New Startup Rate	4	Broadband Provider Availability	13
Export Growth	5	Kauffman Entrepreneurship Index	18
Bridge Quality	5	Road Quality	20
Labor Force Utilization	6	Educational Attainment	22
High-Tech Share of All Businesses	7	Adjusted Median Family Income	23
Small Business Lending	7	State and Local Tax Burden	23
H.S. Advanced Placement Scores	7	Per Capita Income Growth	25
Productivity Growth	8		

Prosperity 2020, a business-led, multiyear statewide movement to encourage the increase the number of Utahans with postsecondary certificates or degrees, elementary students proficient in reading and mathematics, and high school graduation rates, got a big push from the Utah legislature and the Governor's Office in 2013:

- + Lawmakers dedicated \$8.5 million in one-time funds and \$1.5 million in ongoing funds to establish a STEM Action Center within the Governor's Office of Economic Development. The center will promote best practices and become a repository of curriculum, programs, and activities, including coordinating grant opportunities, providing resources to assist students and teachers, developing industry-government partnerships, and providing more pathways to STEM-related occupations.

- + On Pace 66 by 2020 is Governor Gary Herbert's initiative seeking to increase the state's educational performance so that at least two-thirds of Utahans age 20 to 64 will have earned a postsecondary degree or certificate. For those not wanting a college degree, the state is working to have 13% of the workforce hold board-approved certificates by 2020. The Utah College of Applied Technology plays a critical role in meeting this goal, providing quality technical programs targeting the needs of Utah employers.

Utah's 3rd-place ranking in this year's export category confirms its global connectedness and business savvy. Metals make up a majority of Utah's exports, representing about 55% of the total. Exports of primary metals were down a full 20% in 2013 from 2012, but other export categories made significant strides. Computer electronics, Utah's 2nd-largest export category, was up 20%. Exports of food and related products rose 14%, and exports of transportation equipment grew by 2%. Exports account for about 15% of Utah's gross state product and Utah is the only state to have increased its exports every year for the past 10 years.



VERMONT

Vermont's economy made modest gains in recent years, regaining approximately 85% of the 14,000 private sector jobs lost during the recession. Cooled by downward population trends and a shrinking labor force, most of the recent job growth has been in health care, social assistance, and professional services. If current demographic trends continue, the number of Vermonters between the ages of 25 and 64 is expected to continue to decline, with attrition coming mostly from the younger half of that age bracket. With one of the lowest unemployment rates in the country (about 4%) and a lingering shortage of people to pick up available jobs

(9,000 in 2013), recruiting new residents to the state becomes a priority.

Vermont's top 20 spots in this year's rankings—12th for exports and 16th for technology and entrepreneurship—bode well, however, for the future. Vermont's merchandise exports in 2013 totaled \$4 billion, of which \$2.7 billion was from computer and electronic products. Vermont's geographic position, situated between the metropolitan areas of Boston, New York, and Montreal, provides ample opportunity for global connection and access to markets.

The economic connection between Vermont and residents from the Boston area specifically greatly impacts Vermont's tourism sector because Bostonians are among Vermont's "best" source of visitors. Tourists from throughout the world contribute billions of dollars (\$1.7 billion in 2011) and state tourism backers suggest that when people come to Vermont on vacation, they don't want to leave, and some stay to start a new business or expand a branch plant. Vermont's Office of the Creative Economy works to capitalize on this by supporting creative talent in five focal areas, including: film and new media, advertising and marketing, games and software development, the manufacturing arts, and arts and cultural organizations.

K-to-Job is Governor Peter Shumlin's set of proposed initiatives to rethink the way the state prepares students for 21st century jobs. These initiatives are intended to integrate technology, virtual learning, technical education centers, internship and apprenticeship opportunities, and Vermont's many colleges willing to offer credits to students while they are in high school.

One component of K-to-Job—Vermont Strong Scholars Program—aims to help Vermonsters study science, technology, engineering, and mathematics and get high-paying and rewarding jobs in those fields in Vermont. The program would help repay a portion of postsecondary tuition debt for Vermont residents who graduate with a degree in a STEM field and who work at a job in Vermont related to that degree.

UVM Start allows student entrepreneurs to raise money through tax-deductible University of Vermont (UVM) alumni donations and connects student startups with alumni—gaining the connections, mentoring, and capital necessary to get their companies off the ground. UVM Start is an initiative of the university, the Vermont Technology Council, the UVM Foundation, and the Vermont Center for Emerging Technologies.

Connect VT has helped to increase statewide high-speed fixed and wireless Internet access to more than 99% of addresses in Vermont, with significant improvement in mobile cellular coverage on Vermont's road corridors as well. Route 802, Summit Technologies, and VTEL Data Networks, Inc., recently entered into a master services agreement to deliver a unified network of community Wi-Fi hotspots and hot zones throughout Vermont. The goal is to deliver a statewide resource that is fast and free to all, is easy to access, and provides valuable bilingual English/French connectivity resources to Vermont's tourists and locals. The network will deliver travel advisory information, hyper-local messaging, and business promotions directly to mobile devices. The Wi-Fi locations will provide secure access to the Internet with initial connection speeds of up to 100MB.

Source on pages 33–35

Kauffman Entrepreneurship Index	4	Academic R&D Intensity	17
Educational Attainment	8	High-Tech Share of All Businesses	18
Export Intensity	9	Legal Environment	19
Labor Force Utilization	9	STEM Job Concentration	20
Per Capita Income Growth	11	Higher-Ed Degree Output	22
H.S. Advanced Placement Scores	14	STEM Job Growth	23
Productivity Growth	17		



VIRGINIA

Spending cuts caused by the federal government sequestration were expected to cause Virginia's economic engine to slow in 2013, but growth in other industries and markets, backed by a highly educated workforce within the state, tempered the losses, according to the Virginia Economic Forecast, which is produced by the Thomas Jefferson Institute for Public Policy and Chmura Economics and Analytics. Growth industries, selling into both private and public sector markets, included cybersecurity, unmanned vehicles, and products and services related to environmental issues.

Virginia's 12th-place ranking for overall economic performance confirms that the economy in the commonwealth is holding strong. Similarly, its 5th-place rankings for both talent pipeline and technology and entrepreneurship underscore Virginia's apparent capacity for adaptability and flexibility in the economy.

Exports from Virginia in 2013, however, were down 2% from 2012, with the largest decreases attributed to three areas accounting for \$549 million fewer exports: (1) civilian aircraft, engines, and parts; (2) parts and accessories for motor vehicles; and (3) parts of airplanes or helicopters. Some product sectors did show significant increases from 2012, including memory chips and electronic integrated circuits, artificial filaments, and medicines and pharmaceuticals.

Virginia places high in the talent pipeline rankings, but like other states faces a disconnect between the skills in the labor force and what employers say they need in terms of workers with STEM skills. SySTEMic Solutions is working to build a pipeline of STEM workers for Virginia, starting with elementary school children and working to keep them consistently interested in the subject matter until they finish school and enter the workforce. Northern Virginia Community College leads the program in partnership with local businesses, chambers of commerce, and school systems. The SySTEMic Solutions initiative began with \$1 million in state funding, and has since received additional state funding that was matched with corporate donations.

The state legislature has also proposed to direct the Board of Education to develop guidelines for the establishment of High School to Work Partnerships between public high schools and local businesses to create apprenticeships, internships, and job shadow programs in a variety of trades and skilled labor positions.

The TechAmerica Foundation's 2013 edition of *Cyberstates*, a comprehensive look at tech employment, wages, and other key economic factors nationally and state-by-state, ranks Virginia's tech industry 4th in the nation, employing more than 285,000 people in 2012. Virginia had the 2nd-largest computer systems design and related services industry with 149,400 workers, the 4th-largest cluster in engineering services with 47,800 workers, and the 8th-largest Internet and telecommunication services employment with 41,400 workers. Virginia was home to 18,200 tech establishments in 2012, ranked 6th nationwide.

The Blueprint Virginia: A Business Plan for the Commonwealth report and collaborative effort was unveiled in late 2013 as comprehensive initiative to provide business leadership, direction, and long-range economic development planning for Virginia. Over the course of 12 months, the blueprint process engaged business and community leaders from around the state using grassroots input to determine top priorities for strengthening Virginia's economic competitiveness. Regional briefings were held in more than 30 communities where hundreds of Virginia citizens voted on priority issues for their region and the state. Blueprint Virginia was led by the Virginia Chamber of Commerce.

Source on pages 33–35

Adjusted Median Family Income	1	Economic Output per Job	14
STEM Job Concentration	2	Labor Force Utilization	14
High-Tech Share of All Businesses	2	U.S. Business Policy Index	15
H.S. Advanced Placement Scores	3	Long-Term Job Growth	19
STEM Job Growth	5	State and Local Tax Burden	20
Legal Environment	8	Higher-Ed Degree Output	20
Productivity Growth	10	Higher-Ed Efficiency	20
New Startup Rate	11	Cost of Living	24
Educational Attainment	12	Road Quality	24
Gross State Product Growth	13	Business Tax Climate	25



WASHINGTON

In the past year, Washington has completely restructured its economic development efforts, eliminating funding to its existing Economic Development Commission and shifting activities to the Department of Commerce and the Governor's Office. Governor Jay Inslee has expressed support for continued restructuring, setting a goal of rolling all trade and economic development efforts together in one cabinet-level department. This new Office of Economic Development and Competitiveness was launched in 2013, and is currently ramping up its efforts to better organize the state's economic development activities.

Washington set a new record for exports in 2013, exporting nearly \$82 billion in goods. This represented an increase of 8.3% over 2012.⁹⁹ Buoyed by this strong performance, it is no surprise that the state ranks high in exports in this year's report. Washington actively supports and encourages businesses to export through its Export Washington program, an initiative of the state's Department of Commerce. Export Washington offers businesses interested in exporting a variety of support services, including export plan creation, market research, export readiness assessments, training opportunities, and export grants and loans. The state also maintains a team of foreign trade representatives in target markets around the globe, including China, India, Mexico, Vietnam, and Thailand. Export finance services are also available through the state-launched Export Finance Assistance Center of Washington (EFACW). EFACW offers a wide variety of services, and helps new exporters navigate federal programs, transactions, negotiations, and international financing issues.

Ranked in the top 5 states for entrepreneurship and technology in this year's report, Washington actively works to support aspiring entrepreneurs through several initiatives offered by the state's Department of Commerce. Washington's Office of Regulatory Assistance offers aspiring and new entrepreneurs a point of contact to address state permitting and regulatory issues that might otherwise overwhelm a new small business. The state also offers a one-stop shop for information on starting a business in the state through its Access Washington program. Looking to ease access to government services, and cut through red tape, each department in state government has at least one designated Small Business

Liaison, an individual available to provide information and assistance to entrepreneurs.

Washington has embraced tax incentives to support research and development by cutting-edge technology companies in the state that are looking to spur innovation and job creation. These include the state's High Technology Business and Occupation Tax Credit, a High Technology Sales and Use Tax Waiver for qualified research-related construction and equipment purchases, and a Biotechnology & Medical Device Manufacturing Sales and Use Tax Waiver to support investments in equipment for medical device manufacturers.

Washington is also exploring new ways to fund workforce training. The Washington's Lifelong Learning Accounts (LiLA) program offers individuals an innovative way to pay for future education and training expenses. The voluntary, employee-owned accounts are funded with individual contributions and an employer match. Employees using the accounts are able to carry them with them, regardless of where they are employed, maintaining flexibility as their career path evolves. When enough money has been placed in the account, individuals are free to use it for a variety of eligible education-related and training-related expenses at their discretion. By involving a match, the program can make skills training an employer-employee partnership, reducing the cost to both parties. While the LiLA program is currently in a pilot phase, the state is hoping to expand its availability in the next year.

Source on pages 33–35

New Startup Rate	1	Broadband Provider Availability	10
Export Intensity	2	Short-Term Job Growth	11
STEM Job Growth	3	Higher-Ed Degree Output	11
STEM Job Concentration	3	Higher-Ed Efficiency	11
Growth in Share of National Exports	4	Adjusted Median Family Income	12
Productivity Growth	5	Small Business Lending	13
Gross State Product Growth	6	H.S. Advanced Placement Scores	16
Business Tax Climate	6	Educational Attainment	19
U.S. Business Policy Index	6	Export Growth	20
Broadband Speed Availability	7	State and Local Tax Burden	23
Economic Output per Job	8	Legal Environment	24
Long-Term Job Growth	9		



WEST VIRGINIA

Faced with low high school graduation and college attainment rates, West Virginia and Governor Earl Ray Tomblin increased focus on workforce skills improvement, a key item on the state's economic development agenda. According to one estimate, nearly 40% of the state's workforce is in need of skills improvement.¹⁰⁰ Seeking to start identifying solutions to this challenge, Governor Tomblin issued an executive order in 2013 that reestablished the West Virginia Workforce Planning Council. The council, made up of education and government workforce policy leaders, will meet to identify and coordinate the state's resources, while planning a more

comprehensive, industry-focused approach to workforce training in the state. It will be required to issue a report each year, giving state lawmakers and the governor valuable information to help shape workforce development policy initiatives.

West Virginia offers companies and individuals access to a number of programs designed to lower barriers to skills training. The Governor’s Guaranteed Workforce program offers a variety of grants to cover workforce training costs, with specific funding available for small businesses and new and expanding businesses. The small business grant program is able to cover up to 75% of the costs of training, and the new and expanding business program can cover up to 100% of qualified costs. West Virginia has also worked with unions in the state to offer access to a variety of apprenticeship programs, offering specific skills training to individuals interested in pursuing a career in the skilled trades.

The state’s Technical Program Development program also supports improved workforce development programming. Offered through the West Virginia Council for Community and Technical College Education, the program awards competitive grants on a quarterly basis to fund the development and implementation of technical training programs for employers at West Virginia community colleges. Funding lasts for up to three years, but program applicants are asked to create plans for continuing the program after state funding is depleted, providing a sustainable training offering for future use by West Virginia business. The state’s community and technical colleges also offer funding for training through the Advance Rapid Response Workforce Development Program. This flexible funding is available for a variety of training options, focusing on skills-based training resulting in credentials and transferable skills.

West Virginia University (WVU) also participates in industry support and job creation through its WVU Economic Development Office. WVU works with interested businesses, particularly in technology-related industries, providing academic support and access to research, seeking to support economic growth and diversification. The office also works with economic development organizations around the state that are in need of academic support services.

Support of military veterans seeking work and skills training is another part of West Virginia’s jobs strategy. The WV Military Connection website offers veterans access to information on a variety of training options and support services. The state offers waivers of certain commercial driver’s license testing requirements for recently discharged veterans seeking employment as truck drivers, and provides career assessment services to veterans who need help identifying a new career path. The state also supports an active Troops to Teachers program, helping veterans access the resources they need to make a successful transition to a career in education.

Source on pages 33–35

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Per Capita Income Growth	10
Higher-Ed Degree Output	15
Business Tax Climate	23



WISCONSIN

Launched in 2013 with broad bipartisan support, the Wisconsin Fast Forward Training Grant program provides \$15 million in funding to support expanded “employer-led” worker training programs. Grant funding is open to individual businesses, groups of businesses, and businesses working with partners in the public, private, and education sectors. Fast Forward is aimed at meeting workforce training needs that are going unaddressed by existing programming in the state, creating new resources for future training, and building “sustained pipelines” that are tied to the needs of industry. Applicants are required to provide matching funds as part of their

proposal to better leverage the state investment. The program is designed to be “demand-driven”—tied to actual labor market needs—meeting employer needs to train their existing workforce or train new workers.

As part of the Wisconsin Fast Forward Act, the state launched an Office of Skills Development. The new office administers the grant program, identifies business workforce skill needs, builds workforce training collaboration in targeted industries, and works with education and workforce development stakeholders to identify and implement programming tied to industry needs. The act also provided funds to launch a new Labor Market Information System for the state. The new system will work to identify job openings around the state and link them to qualified applicants, while also connecting individuals to the training they need to qualify for openings.

Wisconsin has also made a commitment to increase investment in career and technical education. Enacted late in 2013, the state's new career and technical education incentive grant program offers \$3 million to school districts throughout the state that are working to meet industry-identified workforce needs. Schools are eligible to receive up to \$1,000 for each student completing “industry-recognized certification programs” aimed at addressing existing workforce shortages, providing support for training, and giving students access to career paths leading to immediate, industry-identified job opportunities. In addition to enhanced funding in support of career and technical education-based training, the state has also expanded the use of equivalency credits, allowing Wisconsin students to make more use of technical education to meet their high school graduation requirements. The state increased the amount of mathematics and science coursework required for high school graduation, aiming to better prepare students for the workforce. The new legislation increased the ability to use career and technical education classes to meet

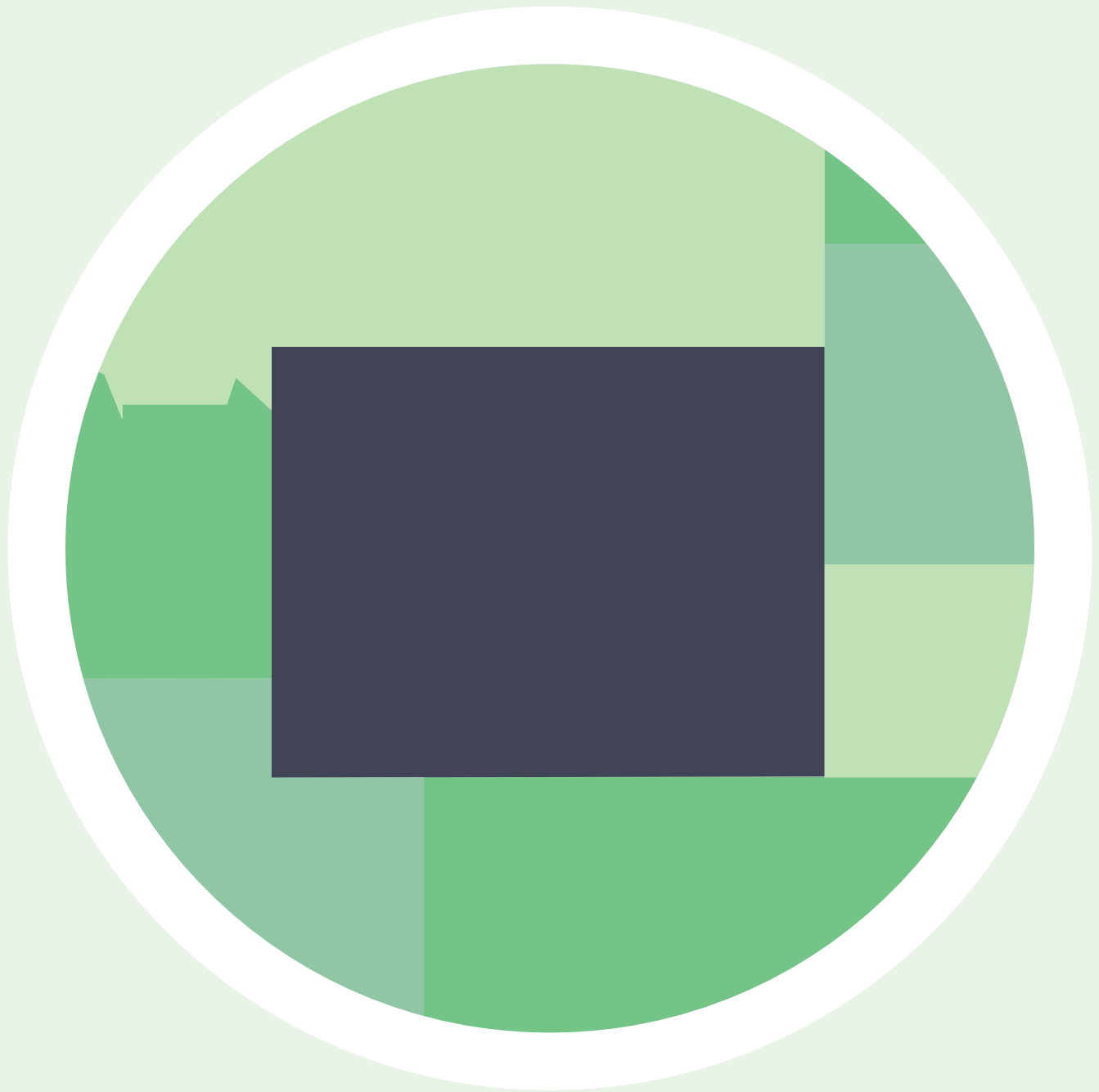
the requirements, offering students the ability to gain mathematics and science education tied to promising career pathways.

Governor Scott Walker has made workforce development reform and investment one of the key planks of his economic agenda, supporting more than \$100 million in targeted support including the Wisconsin Fast Forward Program. As part of the administration's workforce agenda, the state provided new funding to state technical colleges, giving the Wisconsin Technical College System more flexibility in how it may use its existing funding sources and potentially offering it more opportunities to meet industry training needs. The Walker administration's budget for 2013–2015 also provided new funding to help school districts offer new career planning services to students throughout the state. Under the new program, built on the recommendations of the state's College and Workforce Readiness Council, each student in Wisconsin will be able to develop an individualized career and education plan, helping them tie their coursework to a long-term plan for success.

Source on pages 33–35



Bridge Quality	3	Export Intensity	16
Academic R&D Intensity	8	Educational Attainment	17
Legal Environment	8	Export Intensity Growth	19
Adjusted Median Family Income	10	STEM Job Growth	22
Labor Force Utilization	10	Broadband Speed Availability	23
Higher-Ed Efficiency	12	Short-Term Job Growth	24
H.S. Advanced Placement Scores	12	Higher-Ed Degree Output	24
College Affordability	15	Cost of Living	25



WYOMING

A leader in business climate in this year's rankings, Wyoming has built its economic development efforts around the Wyoming Business Council, a government-chartered entity designed to operate like a business while promoting economic growth and job creation in the state. Led by a board of private sector leaders, the council issued a new business plan in 2013, outlining goals for the Wyoming economy and a strategic plan to pursue growth, while keeping the needs and desires of business central to its operations.

Wyoming offers a variety of policies and services designed to maintain an attractive climate for business growth and job creation. The state has adopted business-friendly tax policies, including eliminating corporate income taxes and personal income taxes. The state has also implemented a one-stop system for business permitting through its Business Permitting Assistance Office, allowing new and expanding businesses to cut through red tape more easily when dealing with state government. The business council also offers a variety of loan programs and a small business credit investment program, to help companies access needed capital to expand and create jobs.

One challenge that had faced the state in the past was a lack of development-ready sites. To ensure that businesses looking for space to expand in Wyoming would have options available, the Wyoming Business Council offers site selection and business relocation support services and operates a Business Ready Community grant and loan program. The initiative provides grants and loans to communities around the state to finance public infrastructure needed to create shovel-ready sites and buildings, making sure that communities have the tools they need to offer competitive and attractive sites for new and relocating businesses.

Workforce development support is another service Wyoming offers to help create a strong business climate. The state's Workforce Development Training Fund offers grants for training new and existing employees, and for pre-hiring training. The Pre-Hire Economic Development Grant Program offers funding to bring together partners from local workforce boards, training and educational entities, economic development agencies, and businesses to develop and implement training programs tailored to the needs of industry. The Wyoming Department

of Workforce Services also offers a Pre-Obligation of Workforce Development Training Fund, aimed at providing funds to help economic development agencies put together competitive training packages for businesses considering locating or expanding in Wyoming. Once a business commits to locate in Wyoming, the funding set aside can be disbursed as prehire or new hire training grants.

Wyoming has committed to helping its communities build more business-friendly infrastructure through the Wyoming Business Council's Investment Ready Communities program. The initiative offers financial support to communities to invest in infrastructure and community amenities aimed at creating an environment able to attract and retain businesses while also attracting the workforce needed to support their growth. The program offers funding for a variety of infrastructure and community assets, including child care facilities, which can be a valuable asset to attract young families to relocate to an area in need of young talent.

Source on pages 33–35

State and Local Tax Burden	1	Economic Output per Job	11
Business Tax Climate	1	STEM Job Growth	11
College Affordability	2	Small Business Lending	12
Per Capita Income Growth	3	Export Growth	14
Long-Term Job Growth	4	Legal Environment	16
U.S. Business Policy Index	4	Adjusted Median Family Income	18
Higher-Ed Degree Output	4	Bridge Quality	22
Road Quality	5	Growth in Share of National Exports	24
Labor Force Utilization	8	Kauffman Entrepreneurship Index	25
Gross State Product Growth	10		



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